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Drinking Water Surveillance Program

# FORT ERIE (ROSEHILL) WATER TREATMENT PLANT

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# FORT ERIE (ROSEHILL) WATER TREATMENT PLANT

## DRINKING WATER SURVEILLANCE PROGRAM

## ANNUAL REPORT 1988

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RECYCLABLE

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# EXECUTIVE SUMMARY

## DRINKING WATER SURVEILLANCE PROGRAM

## FORT ERIE WATER TREATMENT PLANT
## 1988 ANNUAL REPORT

The Drinking Water Surveillance Program (DWSP) for Ontario is a monitoring program providing immediate, reliable, current information on drinking water quality. The DWSP officially began in April 1986 and is designed to eventually include all municipal supplies in Ontario. Currently, 52 plants are being monitored.

The Fort Erie (Rosehill) Water Treatment Plant is a conventional treatment plant which treats water from Lake Erie. The process consists of coagulation, flocculation, sedimentation, filtration and disinfection. This plant has a design capacity of 50 x 1000 $m^3$/day and serves a population of approximately 25,000.

Water samples from the raw, treated and two distribution sites were taken on a monthly basis and analyzed for approximately 160 parameters. Parameters were divided into the following groups Bacteriological, Inorganic and Physical (Laboratory Chemistry, Field Chemistry and Metals) and Organics (Chloroaromatics, Chlorophenols, Pesticides and PCB, Phenolics, Polynuclear Aromatic Hydrocarbons, Specific Pesticides and Volatiles). Specific Pesticides and Chlorophenols were analysed in June and November only.

A summary of results is shown in Table 1.

Inorganic and Physical parameters (Laboratory Chemistry, Field Chemistry and Metals) were below any applicable health related ODWOs.

Of approximately 110 Organic parameters tested for on a monthly basis, none exceeded health related guidelines.

During 1988 the DWSP sampling results indicated that the Fort Erie (Rosehill) Water Treatment Plant produced good quality water at the plant and this quality was maintained in the distribution system.

TABLE 1

DRINKING WATER SURVEILLANCE PROGRAM FORT ERIE (ROSEHILL WTP)

SUMMARY TABLE BY SCAN

| SCAN | RAW<br>TESTS | <br>POSITIVE | <br>%POSITIVE | TREATED<br>TESTS | <br>POSITIVE | <br>%POSITIVE | SITE 1<br>TESTS | <br>POSITIVE | <br>%POSITIVE | SITE 2<br>TESTS | <br>POSITIVE | <br>%POSITIVE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BACTERIOLOGICAL | 36 | 31 | 86 | 42 | 7 | 16 | 51 | 19 | 37 | 35 | 12 | 34 |
| CHEMISTRY (FLD) | 31 | 30 | 96 | 66 | 66 | 100 | 99 | 99 | 100 | 55 | 55 | 100 |
| CHEMISTRY (LAB) | 206 | 168 | 81 | 246 | 175 | 71 | 395 | 336 | 85 | 279 | 247 | 88 |
| METALS | 217 | 112 | 51 | 288 | 127 | 44 | 517 | 295 | 57 | 376 | 205 | 54 |
| CHLOROAROMATICS | 140 | 0 | 0 | 168 | 0 | 0 | 98 | 0 | 0 | 98 | 0 | 0 |
| CHLOROPHENOLS | 12 | 0 | 0 | 12 | 0 | 0 | . | . | . | . | . | . |
| PAH | 153 | 0 | 0 | 170 | 0 | 0 | . | . | . | . | . | . |
| PESTICIDES & PCB | 332 | 0 | 0 | 396 | 0 | 0 | 278 | 0 | 0 | 241 | 0 | 0 |
| PHENOLICS | 10 | 4 | 40 | 12 | 4 | 33 | . | . | . | . | . | . |
| SPECIFIC PESTICIDES | 56 | 0 | 0 | 56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLATILES | 287 | 3 | 1 | 287 | 42 | 14 | 228 | 33 | 14 | 173 | 24 | 13 |
| TOTAL | 1480 | 348 | | 1743 | 421 | | 1666 | 782 | | 1257 | 543 | |

NO HEALTH RELATED GUIDELINES WERE EXCEEDED

A POSITIVE VALUE DENOTES THAT THE RESULT IS GREATER THAN THE STATISTICAL LIMIT OF DETECTION AND IS QUANTIFIABLE
A '.' INDICATES THAT NO SAMPLE WAS TAKEN

# DRINKING WATER SURVEILLANCE PROGRAM

## FORT ERIE (ROSEHILL) WATER TREATMENT PLANT
## 1988 ANNUAL REPORT

### INTRODUCTION

The Drinking Water Surveillance Program (DWSP) for Ontario is a monitoring program providing immediate, reliable, current information on drinking water quality. The DWSP officially began in April 1986 and is designed to eventually include all municipal supplies in Ontario. Currently, 52 plants are being monitored.

The DWSP was partially initiated at the Fort Erie (Rosehill) Water Treatment Plant in February of 1987; the full program began in June.

This report contains information and results for 1988.

### PLANT DESCRIPTION

The Fort Erie (Rosehill) Water Treatment Plant is a conventional treatment plant which treats water from Lake Erie. The process consists of coagulation, flocculation, sedimentation, filtration and disinfection; powdered activated carbon is used for taste and odour control when necessary. This plant has a design capacity of 50 x 1000 $m^3$/day and flows on day of sampling ranging from 12 x

1000 $m^3$/day to 30 x 1000 $m^3$/day. The plant serves a population of approximately 25,000.

The plant location is shown in Figure 1. Plant Process details, in a block schematic, are shown in Figure 2. General plant information is presented in Table 2.

## METHODS

Water samples were obtained from four DWSP approved locations;

i) Plant Raw - The water originated from the lowlift discharge prior to chlorination and was sampled through a stainless steel line. The sample tap is located near the lowlift well.

ii) Plant Treated - The water originated from the highlift discharge after addition of all treatment chemicals and was sampled through a stainless steel sample line. The sample tap is located near the highlift pumps.

iii) Distribution System - Site 1 - This house is approximately 4.1 kilometers from the plant. Water was sampled through copper plumbing from the basement laundry tap.

iv) Distribution System - Site 2 - This house is approximately 10 kilometers from the plant. Water was sampled through copper plumbing from the kitchen tap.

# FIGURE 1

## DRINKING WATER SURVEILLANCE PROGRAM

## SITE LOCATION MAP

## FORT ERIE WATER TREATMENT PLANT

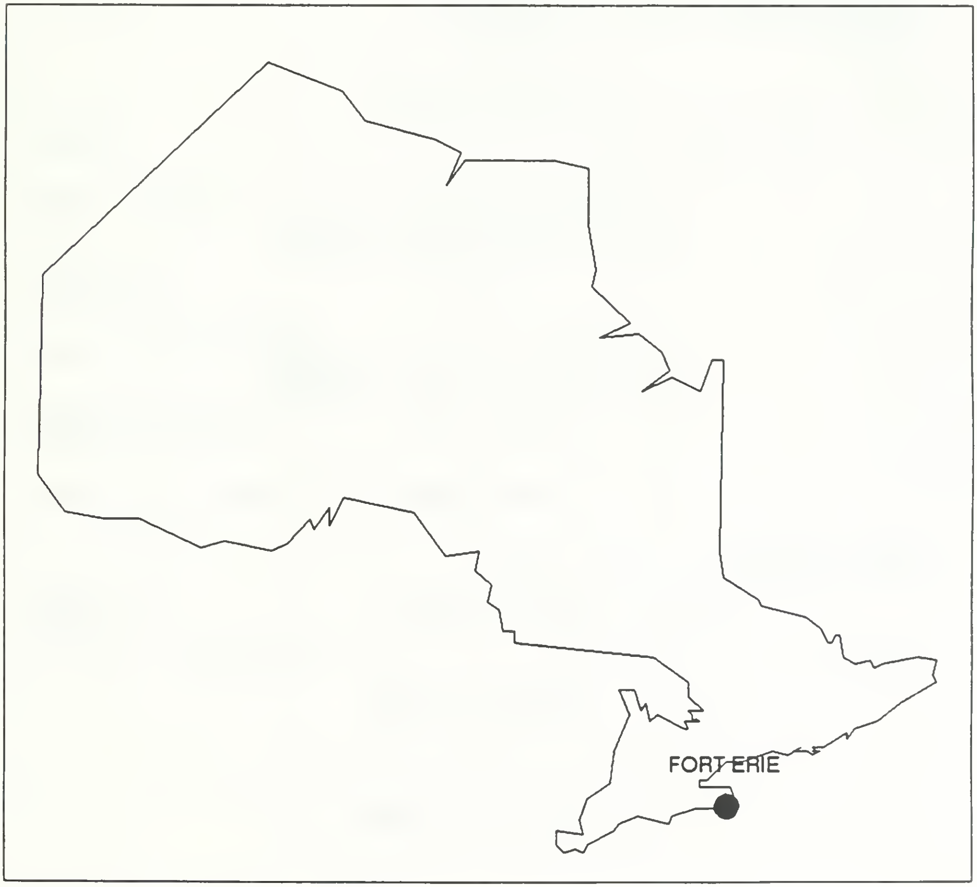

Figure 2

FORT ERIE (ROSE HILL) WATER TREATMENT PLANT

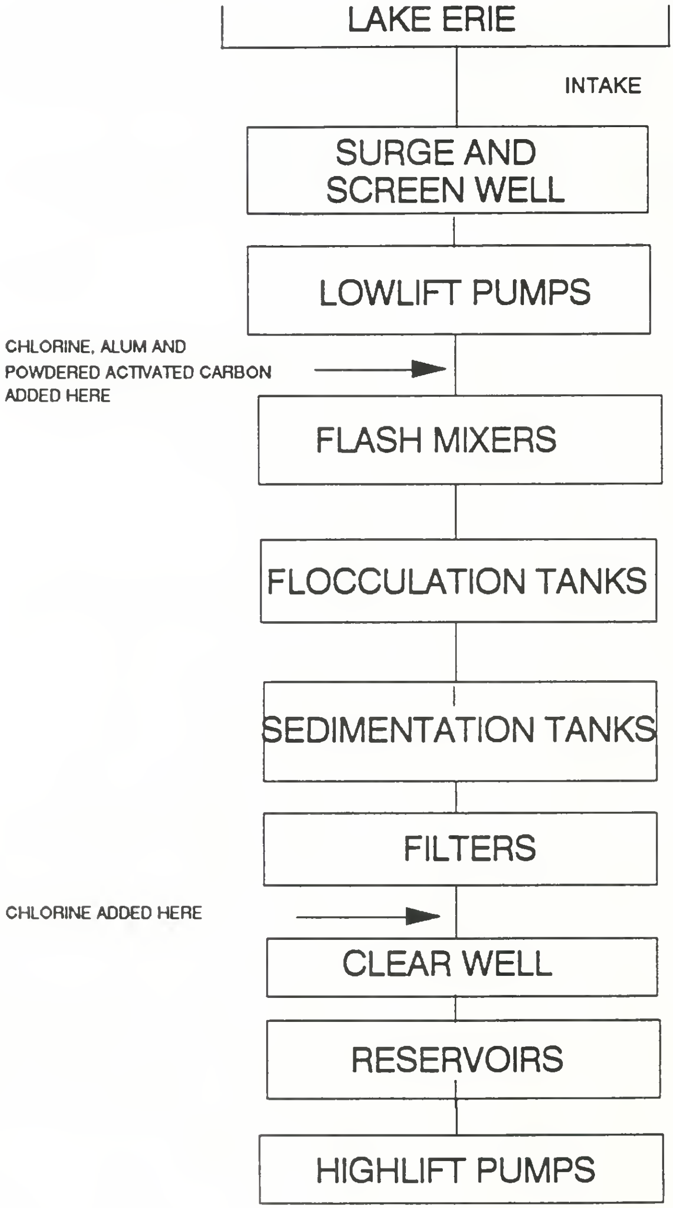

TABLE 2

## DRINKING WATER SURVEILLANCE PROGRAM ANNUAL REPORT

## GENERAL INFORMATION

### Fort Erie (Rosehill) WATER SUPPLY SYSTEM

| | |
|---|---|
| LOCATION: | ROSEHILL ROAD<br>Fort Erie (Rosehill), ONTARIO<br>(416-871-3551) |
| SOURCE: | RAW WATER SOURCE - LAKE ERIE |
| RATED CAPACITY: | 50 (1000 M3/DAY) |
| OPERATION: | MUNICIPAL |
| PLANT SUPERINTENDENT: | MR. H. HODGSON |
| MINISTRY REGION: | WEST CENTRAL |
| DISTRICT OFFICER: | MR. J. MAYES |

| MUNICIPALITY SERVED | POPULATION |
|---|---|
| Fort Erie (Rosehill) | 25,000 |

Sample lines in the plant were flushed prior to sampling to ensure that the water obtained was indicative of its origin and not residual water standing in the sample line.

At both distribution system locations two types of samples were obtained: a standing and a free flow. The standing sample consisted of water that had been in the household plumbing and service connection for a minimum of six hours. These samples are used to make an assessment of the amount by which the levels inorganic compounds may be changed on standing due to leaching from ( or deposition on ) the plumbing system. The only analyses carried out on the standing samples therefore, are General Chemistry and Metals. The free flow sample represented fresh water from the distribution main that had been flowing at the sample tap for five minutes before being sampled.

Attempts were made to capture the same block of water at each sampling point by taking the retention time into consideration. The retention time was calculated by dividing the volume of water between the two sampling points by the sample day flow. For example, if it was determined that the retention time within the plant was five hours then there would be a five hour interval between the raw and treated sampling. Similarly if it was estimated that it took approximately one day for the water to travel from the plant to the distribution system site, this site would be sampled one day after the treated water from the plant.

Stringent DWSP sampling protocols were followed to ensure that all samples were taken in a uniform manner.

Sample day flow, treatment chemical dosages and Field Chemistry measurements were recorded on the day of sampling and were entered on the DWSP database as submitted.

## RESULTS

Water at the Fort Erie (Rosehill) Water Treatment Plant was sampled for approximately 160 parameters. The Specific Pesticides and Chlorophenols scans were sampled in June and November only. Polynuclear Aromatic Hydrocarbons and Phenolics are only analysed in the raw and treated water at the plant. As a result of an unforeseen emergency the laboratory capacity was exceeded and analysis for volatiles could not be carried out when the samples were received. Since analysis for volatiles is no longer valid after four weeks of storage, volatile results for January and February are not available.

Table 3 contains information on the sample day retention time, flow rate and treatment chemicals used and their associated dosages.

Table 4 is a summary break-down of the number of water samples analysed by parameter and by water type. The number of times that a positive or trace result was detected is also reported.

Positive denotes that the result is greater than the statistical limit of detection established by the Ministry of the Environment (MOE) laboratory staff and is quantifiable. Trace (<T) denotes that the level measured is greater than the lowest value detectable by the method but lies so close to the detection limit that it cannot be confidently quantified.

Table 5 presents the results for parameters detected on at least one occasion.

Table 6 lists all parameters analysed in the DWSP.

Associated guidelines and detection limits are also supplied on tables 5 and 6. Parameters are listed alphabetically within each scan.

## DISCUSSION

### General

Water quality is judged by comparison with the Ontario Drinking Water Objectives (ODWOs) as defined in the 1984 publication (ISBN 0-7743-8985-0). The Province of Ontario has health related and aesthetic objectives for 49 parameters, these are currently under review. When an ODWO is not available guidelines/limits from other agencies are consulted. The Parameter Listing System (PALIS) recently initiated by the MOE catalogues and keeps current over 1750 guidelines for 650 parameters from agencies throughout the world.

Although some of the parameters measured on DWSP may be present in the raw and treated water as a result of pollution, many of the compounds detected are naturally occurring or are treatment by-products.

Plant operational personnel address occurrences of taste and odour or biological water quality parameters. The DWSP does not assess these aspects of the water supply.

As stated under Results, traces do not indicate quantifiable values, as defined by established MOE Laboratory analytical reporting protocols. While they can be useful in trend analysis or confirmation of the presence of a specific contaminant that is repeatedly detected at these levels, the occasional finding of a trace level of a contaminant is not considered to be significant. **DISCUSSION OF GUIDELINES AND LIMITS THEREFORE, IS ONLY CONDUCTED ON POSITIVE RESULTS.**

## Bacteriology

Positive results for the Bacteriology scan were present seven times in the treated water, nineteen times in the Site 1 water and twelve times in the Site 2 water. The positive parameters were Standard Plate Count, Total Coliform and/or Total Coliform Background and the Presence/Absence test.

The results for the August Site 1 and Site 2 water samples should be discounted because these samples were not available for bacteriological analysis within the required time period.

Coliforms were detected by the membrane filtration test at 1 count/100mL in the July Site 1 sample.

Aeromonas was determined to be present in the July Site 1 water as a result of a positive Presence/Absence test.

Guidelines for bacteriological sampling and testing of a supply are developed to maintain a proper supervision of its bacteriological quality; the routine monitoring program usually requires the taking of multiple samples in a given system. Full interpretation of bacteriological quality cannot be made on the basis of single samples. Further, bacteriological limits were developed in acknowledgement that the presence of coliforms may be detected due to their non-uniform distribution throughout the distribution system and the fact that their enumeration is subject to considerable variation. For these reasons, the occasional finding of low numbers of coliform organisms is not unexpected. Routine bacteriological monitoring, as outlined in the ODWOs is carried out by the operating authority.

## Inorganic and Physical Parameters

### Laboratory and Field Chemistry

The results for Laboratory and Field Chemistry scans were below any applicable health related ODWOs.

There are ODWOs that are set for parameters which are related to the aesthetic quality rather than health.

The aesthetic ODWO of 5 True Colour Units (TCU) was exceeded in the February Site 2 free flow water (10 TCU) and the MArch Site 2 free flow water (5.5 TCU). Colour in drinking water may be due to the presence of natural and synthetic organic substances as well as certain metallic ions.

The ODWO indicate that a hardness level of between 80 and 100 mg/L as calcium carbonate for domestic waters provides an acceptable balance between corrosion and incrustation. Water supplies with a hardness greater than 200 mg/L are considered poor (Table X), and would possess a tendency to form scale deposits and result in excessive soap consumption. Hardness levels for the Fort Erie (Rosehill) water ranged from 117 to 138 mg/L as Calcium Carbonate.

The Langelier Index is used extensively in estimating the corrosion potential of water. An increasingly negative index indicates the increasing possibility of corrosion. It is considered sound engineering practice to maintain a slightly positive Langelier Index. The Langelier Index for Fort Erie (Rosehill) is consistently positive.

It is desirable that the Temperature of drinking water be less than 15°C; the palatability of water is enhanced by its coolness. A temperature below 15°C will tend to reduce the growth of nuisance organisms and hence minimize associated taste, colour, odour and corrosion problems. The temperature of the delivered water may increase in the distribution system due to the warming effect of the soil in late summer and fall and/or as a result of higher temperatures in the source water. The desired ODWO was exceeded nine times in the treated water and free flow distributed water.

**Metals**

The results reported for the Metal scan were below any applicable ODWOs.

Iron and Manganese levels were lower in the treated water as compared to the raw water. This is a result of the treatment process. The addition of Alum as a coagulant to the raw water and the resulting coagulation/settling process has been shown to reduce the levels of most metals.

Elevated levels of Copper, Lead and Zinc were detected in the standing samples from the distribution system as compared to the free flow samples thus, indicating that these metals were leached from the household plumbing as the water stood overnight. Although the Langelier Index indicates minimal potential for corrosion some metals will be leached in standing samples in most supplies.

The levels of Iron in the Site 2 samples were much higher than those for the treated water at the plant as were both Iron and Manganese values for the Site 1 samples. These elevated levels may be due in part to cast iron distribution mains.

At present, there is no evidence that Aluminum is physiologically harmful and no health limit for drinking water has been specified. The measure of residual Aluminum in the treated water is important to indicate the efficiency of the treatment process. The ODWOs indicate that a useful guideline is to maintain a residual below 100 ug/L as Al in the water leaving the plant to avoid problems in the distribution system. Aluminum values exceeded the ODWO operational guideline eight times in the treated water.

## Organic Parameters

### Chloroaromatics

Results of the Chloroaromatics scan showed that no Chloroaromatics were detected.

### Chlorophenols

Results of the Chlorophenol scan showed that no Chlorophenols were detected.

### Pesticides and PCB (Polychlorinated Biphenyl)

Results of the Pesticide and PCB scan showed that no PCBs were detected and that two pesticides were detected:

Alpha BHC
Linadane

There are several isomers of BHC (Benzene Hexachloride); gamma BHC is the active ingredient of the pesticide Lindane while alpha BHC is the isomer predominantly found in the Great Lakes basin as indicated in results from other water supplies on DWSP.

Alpha BHC was detected at trace levels, six times in the raw water, nine times in the treated water, three times in the Site 1 water and in the Site 2 water.

Lindane was detected at trace levels, once in both the raw water and treated water.

### Specific Pesticides

Results of the Specific Pesticide scan showed that no Specific Pesticides were detected.

### Phenolics

The maximum desirable concentration of phenolic substances in drinking water is 2.0 ug/L. This limit has been set primarily to prevent the occurrence of undesirable tastes and odours, particularly in chlorinated water. Phenolics were detected in the raw water ranging from 1.2 ug/L to 2.0 ug/L and in the treated water ranging from 1.2 ug/L to 2.0 ug/L. Phenolics were also detected at trace levels, four times in the raw water and five times in the treated water. Phenolic compounds are present in the aquatic environment as a result of natural and/or industrial processes.

### Polynuclear Aromatic Hydrocarbons (PAH)

Results of the PAH scan showed that no PAHs were detected.

### Volatiles

Results of the Volatile scan showed that six parameters, other than Trihalomethanes(THMs), were detected:

Benzene
Toluene

Ethylbenzene

Styrene

Carbon Tetrachloride

Tetrachloroethylene

Benzene was detected at a trace level, once in the treated water.

Toluene was detected at trace levels, three times in the treated water, twice in the Site 1 water and once in the Site 2 water. The detection of toluene at low, trace levels is a laboratory artifact derived from the analytical methodology. The purge-and-trap analytical technique depends on the purging of the volatile organics in the water sample with helium gas onto a Tenax trapping column. The volatile materials are subsequently thermally desorbed, separated and quantified. Tenax, a toluene-like polymeric material, tends to decompose sporadically upon heating into toluene and other aromatic components (ethylbenzene and xylene) giving instrument blanks in the order of 0.05 ug/L.

The detected trace levels of Styrene are also considered to be laboratory artifacts due to the outgassing of monomeric styrene from the polystyrene shipping containers. The sporadic background levels from this source are in the order of 0.05 ug/L.

Styrene was detected at positive levels in the October raw water sample at 0.60 ug/L and in the corresponding treated water sample at 0.90 ug/L. These levels are below the United States Environmental Protection Agency's proposed Maximum Contaminant Levels (MCL) for Styrene in drinking water of 140 ug/L.

Ethylbenzene was detected at a trace level, once in the raw water, twice in the treated water and twice in the Site 2 water.

The volatiles listed above are typically found on an occasional basis at other water supplies included on the DWSP usually at trace levels.

Carbon Tetrachloride was detected at a trace level, once in the Site 2 water.

Tetrachloroethylene (T-Chloroethylene) was detected at a trace level, once in the Site 2 water.

THMs are known to be produced during the water treatment process and will always occur in chlorinated surface waters. THMs are comprised of Chloroform, Chlorodibromomethane and Dichlorobromomethane. Bromoform occurs occasionally. Results are reported for the individual compounds as well as for total THMs.

Chloroform, Chlorodibromomethane, Dichlorobromomethane and Total THMs were detected in all treated waters. Bromoform was detected at trace levels, in most samples of treated water. All Total THM occurrences, ranging from 21.6 ug/L to 56.6 ug/L were well below the ODWO of 350 ug/L.

## CONCLUSIONS

The Fort Erie (Rosehill) water treatment plant for the sample year of 1988 produced good quality water at the plant and this was maintained in the distribution system.

No health related guidelines, for organic or inorganic parameters, were exceeded during 1987 and 1988.

## RECOMMENDATIONS

Two recommendations can be made:

1) Consideration should be given to reducing the sampling frequency at this location.

2) The reason for elevated Aluminum levels in treated water samples should be investigated.

TABLE 3

## DRINKING WATER SURVEILLANCE PROGRAM FORT ERIE (ROSEHILL WTP) SAMPLE DAY CONDITIONS FOR 1988

| | SAMPLE DAY CONDITIONS | | TREATMENT CHEMICAL DOSAGES (MG/L) | | | |
|---|---|---|---|---|---|---|
| | | | PRE-CHLORINATION | COAGULATION | POST-CHLORINATION | TASTE & ODOUR |
| DATE | RETENTION TIME(HRS) | FLOW (1000M3) | CHLORINE | ALUM LIQUID | CHLORINE | ACTIVATED CARBON POWDER |
| JAN 26 | 24.0 | 14.3 | .75 | 5.00 | .30 | . |
| FEB 23 | . | 13.0 | .80 | 5.00 | .30 | . |
| MAR 22 | .2 | 13.0 | .75 | 4.50 | .35 | . |
| APR 19 | 24.0 | 14.0 | .75 | 4.50 | .40 | . |
| MAY 17 | 1.0 | 14.0 | 1.00 | 2.50 | .45 | . |
| JUN 14 | .5 | 30.0 | 1.00 | 4.00 | .45 | . |
| JUL 12 | .5 | 29.0 | 1.40 | 5.00 | .45 | 1.50 |
| AUG 09 | .2 | 24.0 | 1.90 | 5.50 | .45 | 1.00 |
| SEP 07 | 2.3 | 14.0 | 1.70 | 6.00 | .50 | 1.00 |
| OCT 03 | .3 | 14.0 | 1.40 | 4.00 | .38 | . |
| NOV 01 | .6 | 14.0 | 1.20 | 5.00 | .30 | . |
| DEC 06 | .7 | 12.0 | 1.10 | 6.00 | .35 | . |

TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM FORT ERIE

### SUMMARY TABLE OF RESULTS (1988)

| | | RAW | | | TREATED | | | SITE 1 | | | SITE 2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCAN | PARAMETER | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE |
| BACTERIOLOGICAL | AEROMONAS SP | . | . | . | . | . | . | 2 | 1 | 0 | 1 | 0 | 0 |
| | E. COLI P/A | . | . | . | . | . | . | 2 | 0 | 0 | 1 | 0 | 0 |
| | FECAL COLIFORM MF | 10 | 5 | 0 | . | . | . | . | . | . | . | . | . |
| | FECAL COLIFORM | . | . | . | . | . | . | 2 | 0 | 0 | 1 | 0 | 0 |
| | STANDRD PLATE CNT MF | 6 | 6 | 0 | 10 | 6 | 0 | 11 | 7 | 0 | 8 | 7 | 0 |
| | P/A BOTTLE | . | . | . | 8 | 0 | 0 | 8 | 2 | 0 | 6 | 1 | 0 |
| | STAPH AUREUS | . | . | . | . | . | . | 2 | 0 | 0 | 1 | 0 | 0 |
| | COLIFORM | . | . | . | . | . | . | 2 | 1 | 0 | 1 | 0 | 0 |
| | TOTAL COLIFORM MF | 10 | 10 | 0 | 12 | 0 | 0 | 11 | 2 | 0 | 8 | 1 | 0 |
| | T COLIFORM BCKGRD MF | 10 | 10 | 0 | 12 | 1 | 0 | 11 | 6 | 0 | 8 | 3 | 0 |
| *TOTAL SCAN BACTERIOLOGICAL | | 36 | 31 | 0 | 42 | 7 | 0 | 51 | 19 | 0 | 35 | 12 | 0 |
| *TOTAL GROUP BACTERIOLOGICAL | | 36 | 31 | 0 | 42 | 7 | 0 | 51 | 19 | 0 | 35 | 12 | 0 |
| CHEMISTRY (FLD) | FLD CHLORINE (COMB) | . | . | . | 11 | 11 | 0 | 11 | 11 | 0 | 2 | 2 | 0 |
| | FLD CHLORINE FREE | 1 | 0 | 0 | 11 | 11 | 0 | 22 | 22 | 0 | 7 | 7 | 0 |
| | FLD CHLORINE (TOTAL) | . | . | . | 11 | 11 | 0 | 22 | 22 | 0 | 8 | 8 | 0 |
| | FLD PH | 10 | 10 | 0 | 11 | 11 | 0 | 22 | 22 | 0 | 16 | 16 | 0 |
| | FLD TEMPERATURE | 10 | 10 | 0 | 11 | 11 | 0 | 22 | 22 | 0 | 16 | 16 | 0 |
| | FLD TURBIDITY | 10 | 10 | 0 | 11 | 11 | 0 | . | . | . | 6 | 6 | 0 |
| *TOTAL SCAN CHEMISTRY (FLD) | | 31 | 30 | 0 | 66 | 66 | 0 | 99 | 99 | 0 | 55 | 55 | 0 |
| CHEMISTRY (LAB) | ALKALINITY | 10 | 10 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 16 | 16 | 0 |

TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM FORT ERIE

### SUMMARY TABLE OF RESULTS (1988)

| | | SITE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | RAW | | | TREATED | | | SITE 1 | | | SITE 2 | |
| SCAN | PARAMETER | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE |
| CHEMISTRY (LAB) | CALCIUM | 10 | 10 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 15 | 15 | 0 |
| | CYANIDE | 10 | 0 | 0 | 12 | 0 | 0 | 11 | 0 | 0 | 8 | 0 | 0 |
| | CHLORIDE | 10 | 10 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 16 | 16 | 0 |
| | COLOUR | 10 | 2 | 8 | 12 | 0 | 12 | 22 | 6 | 16 | 16 | 16 | 0 |
| | CONDUCTIVITY | 10 | 10 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 16 | 16 | 0 |
| | FLUORIDE | 10 | 10 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 15 | 15 | 0 |
| | HARDNESS | 10 | 10 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 15 | 15 | 0 |
| | IONCAL | 10 | 6 | 0 | 12 | 6 | 0 | 22 | 10 | 0 | 16 | 6 | 0 |
| | LANGELIERS INDEX | 10 | 10 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 15 | 15 | 0 |
| | MAGNESIUM | 10 | 10 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 15 | 15 | 0 |
| | SODIUM | 10 | 10 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 15 | 15 | 0 |
| | AMMONIUM TOTAL | 10 | 10 | 0 | 12 | 7 | 5 | 22 | 17 | 5 | 16 | 14 | 2 |
| | NITRITE | 10 | 6 | 4 | 12 | 4 | 7 | 22 | 9 | 13 | 16 | 4 | 12 |
| | TOTAL NITRATES | 10 | 7 | 3 | 12 | 9 | 3 | 22 | 20 | 2 | 16 | 16 | 0 |
| | NITROGEN TOT KJELD | 10 | 10 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 16 | 16 | 0 |
| | PH | 10 | 10 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 16 | 16 | 0 |
| | PHOSPHORUS FIL REACT | 10 | 4 | 5 | 12 | 0 | 10 | . | . | . | . | . | . |
| | PHOSPHORUS TOTAL | 10 | 7 | 2 | 12 | 1 | 9 | . | . | . | . | . | . |
| | SULPHATE | 6 | 6 | 0 | 6 | 6 | 0 | 10 | 10 | 0 | 6 | 6 | 0 |
| | TURBIDITY | 10 | 10 | 0 | 12 | 10 | 2 | 22 | 22 | 0 | 15 | 15 | 0 |
| *TOTAL SCAN CHEMISTRY (LAB) | | 206 | 168 | 22 | 246 | 175 | 48 | 395 | 336 | 36 | 279 | 247 | 14 |
| METALS | SILVER | 9 | 0 | 1 | 12 | 0 | 5 | 22 | 0 | 10 | 16 | 3 | 6 |

TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM FORT ERIE

### SUMMARY TABLE OF RESULTS (1988)

| | | SITE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RAW | | | TREATED | | | SITE 1 | | | SITE 2 | | |
| SCAN | PARAMETER | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE |
| METALS | ALUMINUM | 9 | 9 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 16 | 16 | 0 |
| | ARSENIC | 9 | 2 | 7 | 12 | 0 | 12 | 22 | 0 | 22 | 16 | 0 | 14 |
| | BARIUM | 9 | 9 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 16 | 16 | 0 |
| | BORON | 9 | 9 | 0 | 12 | 10 | 2 | 22 | 18 | 4 | 16 | 13 | 3 |
| | BERYLLIUM | 9 | 0 | 6 | 12 | 0 | 8 | 22 | 0 | 10 | 16 | 0 | 9 |
| | CADMIUM | 9 | 0 | 1 | 12 | 0 | 1 | 22 | 0 | 6 | 16 | 0 | 6 |
| | COBALT | 9 | 0 | 9 | 12 | 2 | 10 | 22 | 10 | 12 | 16 | 0 | 16 |
| | CHROMIUM | 9 | 3 | 6 | 12 | 4 | 8 | 22 | 6 | 16 | 16 | 9 | 7 |
| | COPPER | 9 | 8 | 1 | 12 | 5 | 7 | 22 | 22 | 0 | 16 | 16 | 0 |
| | IRON | 9 | 4 | 5 | 12 | 0 | 7 | 22 | 16 | 6 | 16 | 15 | 0 |
| | MERCURY | 10 | 2 | 6 | 12 | 5 | 6 | 11 | 4 | 7 | 8 | 1 | 1 |
| | MANGANESE | 9 | 9 | 0 | 12 | 11 | 1 | 22 | 22 | 0 | 16 | 15 | 1 |
| | MOLYBDENUM | 9 | 9 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 16 | 16 | 0 |
| | NICKEL | 9 | 1 | 8 | 12 | 0 | 9 | 22 | 3 | 17 | 16 | 3 | 12 |
| | LEAD | 9 | 3 | 6 | 12 | 1 | 7 | 22 | 22 | 0 | 16 | 13 | 3 |
| | ANTIMONY | 9 | 7 | 2 | 12 | 8 | 4 | 22 | 20 | 2 | 16 | 8 | 8 |
| | SELENIUM | 9 | 0 | 5 | 12 | 0 | 11 | 22 | 0 | 20 | 16 | 0 | 14 |
| | STRONTIUM | 9 | 9 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 16 | 16 | 0 |
| | TITANIUM | 9 | 9 | 0 | 12 | 12 | 0 | 22 | 20 | 2 | 16 | 15 | 1 |
| | THALLIUM | 9 | 0 | 4 | 12 | 0 | 3 | 22 | 0 | 10 | 16 | 0 | 3 |
| | URANIUM | 9 | 9 | 0 | 12 | 12 | 0 | 22 | 22 | 0 | 16 | 15 | 1 |
| | VANADIUM | 9 | 1 | 8 | 12 | 2 | 10 | 22 | 0 | 22 | 16 | 0 | 16 |
| | ZINC | 9 | 9 | 0 | 12 | 7 | 5 | 22 | 22 | 0 | 16 | 15 | 1 |
| *TOTAL SCAN METALS | | 217 | 112 | 75 | 288 | 127 | 116 | 517 | 295 | 166 | 376 | 205 | 122 |
| *TOTAL GROUP INORGANIC & PHYSICAL | | 454 | 310 | 97 | 600 | 368 | 164 | 1011 | 730 | 202 | 710 | 507 | 136 |

TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM FORT ERIE

### SUMMARY TABLE OF RESULTS (1988)

| | | SITE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RAW | | | TREATED | | | SITE 1 | | | SITE 2 | | |
| SCAN | PARAMETER | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE |
| CHLOROAROMATICS | HEXACHLOROBUTADIENE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | 123 TRICHLOROBENZENE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | 1234 T-CHLOROBENZENE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | 1235 T-CHLOROBENZENE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | 124 TRICHLOROBENZENE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | 1245 T-CHLOROBENZENE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | 135 TRICHLOROBENZENE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | HCB | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | HEXACHLOROETHANE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | OCTACHLOROSTYRENE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | PENTACHLOROBENZENE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | 236 TRICHLOROTOLUENE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | 245 TRICHLOROTOLUENE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | 26A TRICHLOROTOLUENE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| *TOTAL SCAN CHLOROAROMATICS | | 140 | 0 | 0 | 168 | 0 | 0 | 98 | 0 | 0 | 98 | 0 | 0 |
| CHLOROPHENOLS | 234 TRICHLOROPHENOL | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | 2345 T-CHLOROPHENOL | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | 2356 T-CHLOROPHENOL | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | 245-TRICHLOROPHENOL | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | 246-TRICHLOROPHENOL | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | PENTACHLOROPHENOL | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| *TOTAL SCAN CHLOROPHENOLS | | 12 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM FORT ERIE

SUMMARY TABLE OF RESULTS (1988)

| | | SITE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RAW | | | TREATED | | | SITE 1 | | | SITE 2 | | |
| SCAN | PARAMETER | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE |
| PAH | PHENANTHRENE | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | ANTHRACENE | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | FLUORANTHENE | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | PYRENE | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | BENZO(A)ANTHRACENE | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | CHRYSENE | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | DIMETH. BENZ(A)ANTHR | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | BENZO(E) PYRENE | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | BENZO(J) FLUORANTHEN | 0 | 0 | 0 | 0 | 0 | 0 | . | . | . | . | . | . |
| | BENZO(B) FLUORANTHEN | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | PERYLENE | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | BENZO(K) FLUORANTHEN | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | BENZO(A) PYRENE | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | BENZO(G,H,I) PERYLEN | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | DIBENZO(A,H) ANTHRAC | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | INDENO(1,2,3-C,D) PY | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | BENZO(B) CHRYSENE | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| | ANTHANTHRENE | 0 | 0 | 0 | 0 | 0 | 0 | . | . | . | . | . | . |
| | CORONENE | 9 | 0 | 0 | 10 | 0 | 0 | . | . | . | . | . | . |
| *TOTAL SCAN PAH | | 153 | 0 | 0 | 170 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PESTICIDES & PCB | ALDRIN | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | ALPHA BHC | 10 | 0 | 6 | 12 | 0 | 9 | 7 | 0 | 3 | 7 | 0 | 3 |

TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM FORT ERIE

### SUMMARY TABLE OF RESULTS (1988)

| | | SITE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RAW | | | TREATED | | | SITE 1 | | | SITE 2 | | |
| SCAN | PARAMETER | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE |
| PESTICIDES & PCB | BETA BHC | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | LINDANE | 10 | 0 | 1 | 12 | 0 | 1 | 7 | 0 | 0 | 7 | 0 | 0 |
| | ALPHA CHLORDANE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | GAMMA CHLORDANE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | DIELDRIN | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | METHOXYCHLOR | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | ENDOSULFAN 1 | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | ENDOSULFAN II | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | ENDRIN | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | ENDOSULFAN SULPHATE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | HEPTACHLOR EPOXIDE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | HEPTACHLOR | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | MIREX | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | OXYCHLORDANE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | OPDDT | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | PCB | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | DDD | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | PPDDE | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | PPDDT | 10 | 0 | 0 | 12 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 |
| | AMETRINE | 10 | 0 | 0 | 12 | 0 | 0 | 11 | 0 | 0 | 8 | 0 | 0 |
| | ATRAZINE | 10 | 0 | 0 | 12 | 0 | 0 | 11 | 0 | 0 | 8 | 0 | 0 |
| | ATRATONE | 10 | 0 | 0 | 12 | 0 | 0 | 11 | 0 | 0 | 8 | 0 | 0 |
| | CYANAZINE | 10 | 0 | 0 | 12 | 0 | 0 | 11 | 0 | 0 | 8 | 0 | 0 |
| | DES ETHYL ATRAZINE | 6 | 0 | 0 | 6 | 0 | 0 | 5 | 0 | 0 | 3 | 0 | 0 |
| | DES ETHYL SIMAZINE | 6 | 0 | 0 | 6 | 0 | 0 | 5 | 0 | 0 | 3 | 0 | 0 |

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM FORT ERIE

SUMMARY TABLE OF RESULTS (1988)

| | | SITE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RAW | | | TREATED | | | SITE 1 | | | SITE 2 | | |
| SCAN | PARAMETER | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE |
| PESTICIDES & PCB | PROMETONE | 10 | 0 | 0 | 12 | 0 | 0 | 11 | 0 | 0 | 8 | 0 | 0 |
| | PROPAZINE | 10 | 0 | 0 | 12 | 0 | 0 | 11 | 0 | 0 | 8 | 0 | 0 |
| | PROMETRYNE | 10 | 0 | 0 | 12 | 0 | 0 | 11 | 0 | 0 | 8 | 0 | 0 |
| | METRIBUZIN | 10 | 0 | 0 | 12 | 0 | 0 | 11 | 0 | 0 | 8 | 0 | 0 |
| | SIMAZINE | 10 | 0 | 0 | 12 | 0 | 0 | 11 | 0 | 0 | 8 | 0 | 0 |
| | ALACHLOR | 10 | 0 | 0 | 12 | 0 | 0 | 11 | 0 | 0 | 8 | 0 | 0 |
| | METOLACHLOR | 10 | 0 | 0 | 12 | 0 | 0 | 11 | 0 | 0 | 8 | 0 | 0 |
| *TOTAL SCAN PESTICIDES & PCB | | 332 | 0 | 7 | 396 | 0 | 10 | 278 | 0 | 3 | 241 | 0 | 3 |
| PHENOLICS | PHENOLICS | 10 | 4 | 4 | 12 | 4 | 5 | . | . | . | . | . | . |
| *TOTAL SCAN PHENOLICS | | 10 | 4 | 4 | 12 | 4 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| SPECIFIC PESTICIDES | TOXAPHENE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2,4,5-T | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | 2,4-D | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | 2,4-DB | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | 2,4 D PROPIONIC ACID | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | DICAMBA | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | PICHLORAM | 0 | 0 | 0 | 0 | 0 | 0 | . | . | . | . | . | . |
| | SILVEX | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | DIAZINON | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |

## TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM FORT ERIE

### SUMMARY TABLE OF RESULTS (1988)

| | | SITE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RAW | | | TREATED | | | SITE 1 | | | SITE 2 | | |
| SCAN | PARAMETER | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE |
| SPECIFIC PESTICIDES | DICHLOROVOS | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | CHLORPYRIFOS | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | ETHION | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | AZINPHOS-METHYL | 0 | 0 | 0 | 0 | 0 | 0 | . | . | . | . | . | . |
| | MALATHION | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | MEVINPHOS | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | METHYL PARATHION | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | METHYLTRITHION | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | PARATHION | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | PHORATE | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | RELDAN | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | RONNEL | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | AMINOCARB | 0 | 0 | 0 | 0 | 0 | 0 | . | . | . | . | . | . |
| | BENOMYL | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | BUX | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | CARBOFURAN | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | CICP | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | DIALLATE | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | EPTAM | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | IPC | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | PROPOXUR | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | CARBARYL | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| | BUTYLATE | 2 | 0 | 0 | 2 | 0 | 0 | . | . | . | . | . | . |
| *TOTAL SCAN SPECIFIC PESTICIDES | | 56 | 0 | 0 | 56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM FORT ERIE

### SUMMARY TABLE OF RESULTS (1988)

| | | SITE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RAW | | | TREATED | | | SITE 1 | | | SITE 2 | | |
| SCAN | PARAMETER | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE |
| VOLATILES | BENZENE | 10 | 0 | 0 | 10 | 0 | 1 | 8 | 0 | 0 | 6 | 0 | 0 |
| | TOLUENE | 10 | 0 | 0 | 10 | 1 | 2 | 8 | 1 | 1 | 6 | 0 | 1 |
| | ETHYLBENZENE | 10 | 0 | 1 | 10 | 0 | 2 | 8 | 0 | 0 | 6 | 0 | 2 |
| | P-XYLENE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
| | M-XYLENE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
| | O-XYLENE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
| | STYRENE | 3 | 1 | 2 | 3 | 1 | 2 | 2 | 0 | 2 | 2 | 0 | 2 |
| | 1,1 DICHLOROETHYLENE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
| | METHYLENE CHLORIDE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
| | T1,2DICHLOROETHYLENE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
| | 1,1 DICHLOROETHANE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
| | CHLOROFORM | 10 | 1 | 1 | 10 | 10 | 0 | 8 | 8 | 0 | 6 | 6 | 0 |
| | 111, TRICHLOROETHANE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
| | 1,2 DICHLOROETHANE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
| | CARBON TETRACHLORIDE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 1 |
| | 1,2 DICHLOROPROPANE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
| | TRICHLOROETHYLENE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
| | DICHLOROBROMOMETHANE | 10 | 1 | 1 | 10 | 10 | 0 | 8 | 8 | 0 | 6 | 6 | 0 |
| | 112 TRICHLOROETHANE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
| | CHLORODIBROMOMETHANE | 10 | 0 | 1 | 10 | 10 | 0 | 8 | 8 | 0 | 6 | 6 | 0 |
| | T-CHLOROETHYLENE | 10 | 0 | 0 | 10 | 0 | 0 | 7 | 0 | 0 | 6 | 0 | 1 |
| | BROMOFORM | 10 | 0 | 0 | 10 | 0 | 9 | 8 | 0 | 8 | 6 | 0 | 5 |
| | 1122 T-CHLOROETHANE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
| | CHLOROBENZENE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
| | 1,4 DICHLOROBENZENE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |

## TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM FORT ERIE

### SUMMARY TABLE OF RESULTS (1988)

|  |  | SITE |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | RAW |  |  | TREATED |  |  | SITE 1 |  |  | SITE 2 |  |  |
| SCAN | PARAMETER | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE | TOTAL | POSITIVE | TRACE |
| VOLATILES | 1,3 DICHLOROBENZENE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
|  | 1,2 DICHLOROBENZENE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
|  | TRIFLUOROCHLOROTOLUE | 4 | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 |
|  | ETHLYENE DIBROMIDE | 10 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 0 |
|  | TOTL TRIHALOMETHANES | 10 | 0 | 2 | 10 | 10 | 0 | 8 | 8 | 0 | 6 | 6 | 0 |
| *TOTAL SCAN VOLATILES |  | 287 | 3 | 8 | 287 | 42 | 16 | 228 | 33 | 11 | 173 | 24 | 12 |
| *TOTAL GROUP ORGANIC |  | 990 | 7 | 19 | 1101 | 46 | 31 | 604 | 33 | 14 | 512 | 24 | 15 |
| TOTAL |  | 1480 | 348 | 116 | 1743 | 421 | 195 | 1666 | 782 | 216 | 1257 | 543 | 151 |

## KEY TO TABLE 5 and 6

A ONTARIO DRINKING WATER OBJECTIVES (ODWO)
- 1. Maximum Acceptable Concentration (MAC)
- 1+. MAC for Total Trihalomethanes
- 1*. MAC for Bacteriological Analyses
  Poor water quality is indicated when :
  - total coliform counts > 0 < 5
  - P/A Bottle Test is present after 48 hours
  - Aeromonas organisms are detected in more than 25% of samples in a single submission or in successive submissions from the same sampling site
  - Pseudomonas Aeruginosa, Staphylococcus Aureus and members of the Fecal Streptococcus group should not be detected in any sample
  - Standard Plate Count should not exceed 500 organisms per ml at 35 $^{0}$C within 48 hours
- 2. Interim Maximum Acceptable Concentration (IMAC)
- 3. Maximum Desirable Concentration (MDC)
- 4. Aesthetic or Recommended Operational Guideline
  - hardness levels between 80 and 100 mg/L as calcium carbonate are considered to provide an acceptable balance between corrosion and incrustation, water supplies with a hardness >200 mg/L are considered poor and those in excess of 500 mg/L are unacceptable.

B HEALTH & WELFARE CANADA (H&W)
- 1. Maximum Acceptable Concentration (MAC)
- 2. Proposed MAC
- 3. Interim MAC
- 4. Aesthetic Objective (AO) (for xylenes, the AO is a total)

C WORLD HEALTH ORGANIZATION (WHO)
- 1. Guideline Value (GV)
- 2. Tentative GV
- 3. Aesthetic GV

D US ENVIRONMENTAL PROTECTION AGENCY (EPA)
- 1. Maximum Contaminant Level (MCL)
- 2. Suggested No-Adverse Effect Level (SNAEL)
- 3. Lifetime Health Advisory
- 4. EPA Ambient Water Quality Criteria

F EUROPEAN ECONOMIC COMMUNITY (EEC)
- 1. Health Related Guideline Level
- 2. Aesthetic Guideline Level
- 3. Maximum Admissable Concentration (MADC)

G CALIFORNIA STATE DEPARTMENT OF HEALTH-GUIDELINE VALUE

H USSR MAXIMUM PERMISSIBLE CONCENTRATION

I NEW YORK STATE AMBIENT WATER GUIDELINE

N/A NONE AVAILABLE

# LABORATORY RESULTS, REMARK DESCRIPTIONS

| | |
|---|---|
| . | No Sample Taken |
| BDL | Below Minimum Measurable Amount |
| <T | Greater Than Detection Limit But Not Confident |
| > | Results Are Greater Than The Upper Limit |
| <=> | Approximate Result |
| !AW | No Data: Analysis Withdrawn |
| !CR | No Data: Could Not Confirm By Reanalysis |
| !CS | No Data: Contamination Suspected |
| !IL | No Data: Sample Incorrectly Labelled |
| !IS | No Data: Insufficient Sample |
| !LA | No Data: Laboratory Accident |
| !LD | No Data: Test Queued After Sample Discarded |
| !NA | No Data: No Authorization To Perform Reanalysis |
| !NP | No Data: No Procedure |
| !NR | No Data: Sample Not Received |
| !OP | No Data: Obscured Plate |
| !QU | No Data: Quality Control Unacceptable |
| !PE | No Data: Procedural Error - Sample Discarded |
| !PH | No Data: Sample pH Outside Valid Range |
| !RO | No Data: See Attached Report (no numeric results) |
| !SM | No Data: Sample Missing |
| !SS | No Data: Send Separate Sample Properly Preserved |
| !UI | No Data: Indeterminant Interference |
| !TX | No Data: Time Expired |
| A3C | Approximate, Total Count Exceeded 300 Colonies |
| APL | Additional Peak, Large, Not Priority Pollutant |
| APS | Additional Peak, Less Than, Not Priority Pollutant |
| CIC | Possible Contamination, Improper Cap |
| CRO | Calculated Result Only |

| | |
|---|---|
| PPS | Test Performed On Preserved Sample |
| RMP | P and M-Xylene Not Separated |
| RRV | Rerun Verification |
| RVU | Reported Value Unusual |
| SPS | Several Peaks, Small, Not Priority Pollutant |
| UAL | Unreliable: Sample Age Exceeds Normal Limit |
| UCR | Unreliable: Could Not Confirm By Reanalysis |
| UCS | Unreliable: Contamination Suspected |
| UIN | Unreliable: Indeterminant Interference |
| XP | Positive After X Number of Hours |
| T# (T06) | Result Taken After # Hours |

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM FORT ERIE (ROSEHILL WTP) 1988

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| BACTERIOLOGICAL | | | | | | |
| AEROMONAS SP (0=ABSENT ) | | | DET'N LIMIT = N/A | | GUIDELINE = 0 (A1) | |
| MAR | . | . | . | . | . | 0 |
| JUL | . | . | . | 1 | . | . |
| AUG | . | . | . | 0 | . | . |
| E. COLI P/A (0=ABSENT ) | | | DET'N LIMIT = N/A | | GUIDELINE = N/A | |
| MAR | . | . | . | . | . | 0 |
| JUL | . | . | . | 0 | . | . |
| AUG | . | . | . | 0 | . | . |
| FECAL COLIFORM MF (CT/100ML ) | | | DET'N LIMIT = 0 | | GUIDELINE = 0 (A1) | |
| MAR | 0 | . | . | . | . | . |
| APR | 0 | . | . | . | . | . |
| MAY | 0 | . | . | . | . | . |
| JUN | 0 | . | . | . | . | . |
| JUL | 2 | . | . | . | . | . |
| AUG | 0 | . | . | . | . | . |
| SEP | 4 | . | . | . | . | . |
| OCT | 2 T48 | . | . | . | . | . |
| NOV | 1 T24 | . | . | . | . | . |
| DEC | 50 T48 | . | . | . | . | . |
| FECAL COLIFORM (0=ABSENT ) | | | DET'N LIMIT = N/A | | GUIDELINE = 0 (A1) | |
| MAR | . | . | . | . | . | 0 |
| JUL | . | . | . | 0 | . | . |
| AUG | . | . | . | 0 | . | . |

|  | WATER TREATMENT PLANT |  | DISTRIBUTION SYSTEM |  |  |  |
|---|---|---|---|---|---|---|
|  | RAW | TREATED | SITE 1 |  | SITE 2 |  |
|  |  |  | STANDING | FREE FLOW | STANDING | FREE FLOW |
| STANDRD PLATE CNT MF (CT/ML ) |  |  | DET'N LIMIT = 0 |  | GUIDELINE = 500/ML (A1) |  |
| JAN | . | 0 | . | 0 | . | 0 |
| FEB | . | 4 | . | 1 | . | 62 |
| MAR | 1 | 16 | . | 0 | . | 2 |
| APR | 68 | 0 | . | 1 | . | 2 |
| MAY | 32 | 71 | . | 25 | . | . |
| JUN | 560 | 1 | . | 380 | . | 11 |
| JUL | 5200 | !LA | . | 296 | . | . |
| AUG | 740 | 6 | . | 1100 | . | 800 |
| SEP | . | 3 | . | 13 | . | . |
| OCT | . | 1 <=> | . | 5 <=> | . | . |
| NOV | . | 1 <=> | . | 1 <=> | . | 187 T24 |
| DEC | . | !LA | . | . | . | 42 T24 |
| P/A BOTTLE (0=ABSENT ) |  |  | DET'N LIMIT = 0 |  | GUIDELINE = 0 (A1*) |  |
| JAN | . | 0 | . | 0 | . | 0 |
| FEB | . | 0 | . | 0 | . | 0 |
| MAR | . | 0 | . | 0 | . | 1 |
| APR | . | 0 | . | 0 | . | 0 |
| MAY | . | 0 | . | 0 | . | . |
| JUN | . | 0 | . | 0 | . | 0 |
| JUL | . | 0 | . | 1 | . | . |
| AUG | . | 0 | . | 1 | . | 0 |
| STAPH AUREUS (0=ABSENT ) |  |  | DET'N LIMIT = N/A |  | GUIDELINE = 0 (A1) |  |
| MAR | . | . | . | . | . | 0 |
| JUL | . | . | . | 0 | . | . |
| AUG | . | . | . | 0 | . | . |
| COLIFORM (0=ABSENT ) |  |  | DET'N LIMIT = N/A |  | GUIDELINE = 0 (A1) |  |
| MAR | . | . | . | . | . | 0 |
| JUL | . | . | . | 0 | . | . |
| AUG | . | . | . | 1 | . | . |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| TOTAL COLIFORM MF (CT/100ML ) | | | DET'N LIMIT = 0 | | GUIDELINE = 5/100ML(A1) | |
| JAN | . | 0 | . | 0 | . | 0 |
| FEB | . | 0 | . | 0 | . | 0 |
| MAR | 8 | 0 | . | 0 | . | 0 |
| APR | 26 | 0 | . | 0 | . | 0 |
| MAY | 18 | 0 | . | 0 | . | . |
| JUN | 126 A3C | 0 | . | 0 | . | 0 |
| JUL | 120 | 0 | . | 1 | . | . |
| AUG | 300 | 0 | . | 2 | . | 40 A3C |
| SEP | 50 | 0 | . | 0 | . | . |
| OCT | 8 A3C | 0 T48 | . | 0 T24 | . | . |
| NOV | 38 A3C | 0 T24 | . | 0 T24 | . | 0 T24 |
| DEC | 480 A3C | BDL | . | . | . | 0 T24 |
| T COLIFORM BCKGRD MF (CT/100ML ) | | | DET'N LIMIT = 0 | | GUIDELINE = N/A | |
| JAN | . | 0 | . | 0 | . | 0 |
| FEB | . | 0 | . | 0 | . | 0 |
| MAR | 114 | 0 | . | 0 | . | 0 |
| APR | 156 | 0 | . | 0 | . | 0 |
| MAY | 202 | 0 | . | 0 | . | . |
| JUN | 2200 | 0 | . | 14 | . | 0 |
| JUL | 10900 | 0 | . | 114 | . | . |
| AUG | 10400 | 0 | . | 204 | . | 26000 |
| SEP | 28000 | 0 | . | 22 | . | . |
| OCT | 4800 > | 1 T48 | . | 2 T24 | . | . |
| NOV | 4800 A3C | 0 T24 | . | 2 T24 | . | 220 T24 |
| DEC | 7000 A3C | BDL | . | . | . | 100 T24 |

|  | WATER TREATMENT PLANT |  | DISTRIBUTION SYSTEM |  |  |  |
|---|---|---|---|---|---|---|
|  | RAW | TREATED | SITE 1 |  | SITE 2 |  |
|  |  |  | STANDING | FREE FLOW | STANDING | FREE FLOW |
|  | CHEMISTRY (FLD) |  |  |  |  |  |
| FLD CHLORINE (COMB) (MG/L ) |  |  | DET'N LIMIT = N/A |  | GUIDELINE = N/A |  |
| JAN | . | . | .200 | .200 | . | . |
| FEB | . | .070 | .200 | . | . | . |
| MAR | . | .090 | . | .200 | .100 | . |
| APR | . | .040 | . | . | . | . |
| MAY | . | .250 | .200 | .200 | . | . |
| JUN | . | .070 | .200 | . | . | . |
| JUL | . | .100 | . | .200 | . | . |
| AUG | . | .050 | .200 | . | . | .100 |
| SEP | . | .100 | . | .200 | . | . |
| OCT | . | .080 | . | . | . | . |
| NOV | . | .200 | . | .200 | . | . |
| DEC | . | .110 | . | . | . | . |
| FLD CHLORINE FREE (MG/L ) |  |  | DET'N LIMIT = N/A |  | GUIDELINE = N/A |  |
| JAN | . | . | .100 | .100 | . | .100 |
| FEB | . | .410 | .100 | .300 | . | .150 |
| MAR | . | .480 | .300 | .300 | . | . |
| APR | . | .310 | .300 | .100 | . | .100 |
| MAY | . | .350 | .100 | .100 | . | . |
| JUN | . | .350 | .100 | .100 | . | .100 |
| JUL | . | .340 | .100 | .100 | . | . |
| AUG | . | .400 | .100 | .100 | . | .150 |
| SEP | . | .350 | .300 | .100 | . | . |
| OCT | .000 | .270 | .300 | .300 | . | . |
| NOV | . | .400 | .300 | .100 | . | .100 |
| DEC | . | .320 | . | . | . | .150 |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| FLD CHLORINE (TOTAL) (MG/L ) | | | DET'N LIMIT = N/A | | GUIDELINE = N/A | |
| JAN | . | . | .300 | .300 | . | .100 |
| FEB | . | .480 | .300 | .300 | . | .150 |
| MAR | . | .570 | .300 | .500 | .100 | .150 |
| APR | . | .350 | .300 | .100 | . | .100 |
| MAY | . | .600 | .300 | .300 | . | . |
| JUN | . | .420 | .300 | .100 | . | . |
| JUL | . | .440 | .100 | .300 | . | . |
| AUG | . | .450 | .300 | .100 | . | .250 |
| SEP | . | .450 | .300 | .300 | . | . |
| OCT | . | .350 | .300 | .300 | . | . |
| NOV | . | .600 | .300 | .300 | . | .100 |
| DEC | . | .430 | . | . | . | .150 |
| FLD PH (DMSNLESS ) | | | DET'N LIMIT = N/A | | GUIDELINE = 6.5-8.5(A4) | |
| JAN | . | . | 7.800 | 7.800 | 7.400 | 7.300 |
| FEB | . | 7.600 | 7.800 | 7.400 | 7.800 | 7.600 |
| MAR | 8.200 | 7.600 | 7.600 | 7.800 | 7.600 | 7.800 |
| APR | 7.900 | 7.600 | 7.800 | 7.600 | 7.600 | 7.600 |
| MAY | 8.000 | 7.600 | 7.800 | 7.600 | . | . |
| JUN | 7.800 | 7.600 | 7.800 | 7.800 | 7.800 | 7.650 |
| JUL | 8.000 | 7.600 | 7.800 | 7.600 | . | . |
| AUG | 8.000 | 7.600 | 7.800 | 7.800 | 7.600 | 7.800 |
| SEP | 7.800 | 7.500 | 7.800 | 7.800 | . | . |
| OCT | 7.800 | 7.500 | 7.800 | 7.400 | . | . |
| NOV | 7.800 | 7.600 | 7.400 | 7.600 | 7.600 | 7.500 |
| DEC | 7.800 | 7.600 | . | . | 7.600 | 7.900 |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| FLD TEMPERATURE (DEG.C ) | | | DET'N LIMIT = N/A | | GUIDELINE = 15 (A1) | |
| JAN | . | . | 12.000 | 4.000 | 3.000 | 4.000 |
| FEB | . | .800 | 11.500 | 3.000 | 10.000 | 3.000 |
| MAR | 1.000 | 1.000 | 9.000 | 4.900 | 4.000 | 3.000 |
| APR | 2.000 | 2.000 | 12.000 | 8.000 | 10.000 | 8.000 |
| MAY | 10.000 | 10.000 | 11.000 | 11.000 | . | . |
| JUN | 15.000 | 15.000 | 16.000 | 14.500 | 12.500 | 14.000 |
| JUL | 23.000 | 22.000 | 19.500 | 18.000 | . | . |
| AUG | 25.000 | 23.000 | 21.000 | 21.000 | 22.000 | 22.000 |
| SEP | 21.000 | 20.000 | 20.000 | 19.000 | . | . |
| OCT | 18.300 | 19.000 | 19.000 | 18.000 | . | . |
| NOV | 9.900 | 11.000 | 15.500 | 14.500 | 14.000 | 12.000 |
| DEC | 6.600 | 8.000 | . | . | 11.000 | 9.000 |
| FLD TURBIDITY (FTU ) | | | DET'N LIMIT = N/A | | GUIDELINE = 1.0 (A1) | |
| JAN | . | . | . | . | .200 | .210 |
| FEB | . | .410 | . | . | . | .250 |
| MAR | 1.700 | .250 | . | . | .210 | .200 |
| APR | 3.600 | .290 | . | . | . | .380 |
| MAY | 1.100 | .290 | . | . | . | . |
| JUN | 2.900 | .250 | . | . | . | . |
| JUL | 1.400 | .630 | . | . | . | . |
| AUG | 1.500 | .310 | . | . | . | . |
| SEP | 1.600 | .160 | . | . | . | . |
| OCT | 1.200 | .220 | . | . | . | . |
| NOV | 8.200 | .200 | . | . | . | . |
| DEC | 20.000 | .180 | . | . | . | . |

|  | WATER TREATMENT PLANT |  | DISTRIBUTION SYSTEM |  |  |  |
|---|---|---|---|---|---|---|
|  | RAW | TREATED | SITE 1 |  | SITE 2 |  |
|  |  |  | STANDING | FREE FLOW | STANDING | FREE FLOW |
|  | CHEMISTRY (LAB) |  |  |  |  |  |
| ALKALINITY (MG/L ) |  |  | DET'N LIMIT = .200 |  | GUIDELINE = 30-500 (A4) |  |
| JAN | . | 100.600 | 100.100 | 100.900 | 100.300 | 98.700 |
| FEB | . | 102.800 | 104.300 | 104.300 | 106.800 | 105.000 |
| MAR | 104.100 | 100.200 | 99.700 | 100.400 | 101.400 | 100.100 |
| APR | 99.500 | 94.800 | 95.900 | 96.500 | 95.700 | 97.600 |
| MAY | 99.700 | 97.900 | 98.800 | 99.000 | . | . |
| JUN | 103.500 | 99.300 | 99.700 | 99.600 | 99.700 | 100.200 |
| JUL | 100.100 | 89.500 | 91.300 | 92.200 | . | . |
| AUG | 100.400 | 96.200 | 98.800 | 96.500 | 98.400 | 98.700 |
| SEP | 98.200 | 94.200 | 93.600 | 94.400 | . | . |
| OCT | 102.000 | 98.800 | 99.400 | 99.600 | . | . |
| NOV | 103.100 | 100.900 | 101.300 | 101.800 | 102.300 | 103.400 |
| DEC | 110.000 | 104.000 | . | . | 104.300 | 103.600 |
| CALCIUM (MG/L ) |  |  | DET'N LIMIT = .100 |  | GUIDELINE = 100 (F2) |  |
| JAN | . | 37.400 | 37.000 | 37.600 | 38.000 | 36.800 |
| FEB | . | 38.800 | 40.200 | 39.000 | 39.600 | 40.600 |
| MAR | 40.200 | 40.400 | 39.000 | 39.400 | 39.200 | 36.400 |
| APR | 32.400 | 34.000 | 34.000 | 34.600 | 35.400 | 34.400 |
| MAY | 36.600 | 36.800 | 36.200 | 37.000 | . | . |
| JUN | 36.400 | 37.000 | 37.200 | 37.600 | 37.400 | !IS |
| JUL | 37.000 | 39.000 | 38.600 | 38.200 | . | . |
| AUG | 35.800 | 36.700 | 37.400 | 36.200 | 36.800 | 37.100 |
| SEP | 36.200 | 37.800 | 37.800 | 38.400 | . | . |
| OCT | 37.600 | 37.400 | 38.400 | 39.200 | . | . |
| NOV | 37.400 | 36.200 | 36.200 | 37.000 | 36.800 | 36.600 |
| DEC | 39.000 | 38.600 | . | . | 38.200 | 38.600 |

|  | WATER TREATMENT PLANT |  | DISTRIBUTION SYSTEM |  |  |  |
|---|---|---|---|---|---|---|
|  | RAW | TREATED | SITE 1 |  | SITE 2 |  |
|  |  |  | STANDING | FREE FLOW | STANDING | FREE FLOW |
| CHLORIDE (MG/L ) |  |  | DET'N LIMIT = .200 |  | GUIDELINE = 250 (A3) |  |
| JAN | . | 15.800 | 15.900 | 15.800 | 15.800 | 15.800 |
| FEB | . | 17.700 | 17.300 | 17.200 | 17.300 | 17.500 |
| MAR | 14.900 | 15.900 | 15.900 | 15.900 | 15.800 | 15.800 |
| APR | 14.300 | 15.000 | 15.100 | 15.000 | 15.000 | 14.900 |
| MAY | 15.700 | 16.200 | 16.900 | 16.700 | . | . |
| JUN | 15.200 | 16.100 | 16.300 | 16.600 | 16.200 | 16.200 |
| JUL | 15.600 | 16.100 | 16.200 | 17.400 | . | . |
| AUG | 14.200 | 16.800 | 16.900 | 16.800 | 16.400 | 16.600 |
| SEP | 15.000 | 17.000 | 16.900 | 16.800 | . | . |
| OCT | 15.000 | 16.500 | 16.600 | 16.500 | . | . |
| NOV | 14.700 | 16.500 | 16.700 | 16.600 | 16.300 | 16.200 |
| DEC | 15.300 | 16.400 | . | . | 16.000 | 16.100 |
| COLOUR (HZU ) |  |  | DET'N LIMIT = .5 |  | GUIDELINE = 5.0 (A3) |  |
| JAN | . | .500 <T | 1.500 <T | 1.000 <T | 4.500 | 4.500 |
| FEB | . | 1.000 <T | 1.000 <T | 1.000 <T | 5.000 | 10.000 |
| MAR | 2.000 <T | .500 <T | 1.000 <T | 1.000 <T | 5.000 | 5.500 |
| APR | 2.000 <T | .500 <T | 2.500 | 2.000 <T | 4.000 | 4.000 |
| MAY | 2.000 <T | 1.500 <T | 3.000 | 3.000 | . | . |
| JUN | 2.500 | 1.000 <T | 2.500 | 1.500 <T | 4.000 | 3.000 |
| JUL | 2.000 <T | .500 <T | 1.500 <T | 2.000 <T | . | . |
| AUG | 2.000 <T | .500 <T | 1.500 <T | 2.000 <T | 3.000 | 3.000 |
| SEP | 2.000 <T | .500 <T | 2.000 <T | 2.000 <T | . | . |
| OCT | 2.000 <T | .500 <T | 2.000 <T | 2.000 <T | . | . |
| NOV | 2.500 | 1.000 <T | 2.500 | 3.000 | 5.000 | 4.500 |
| DEC | 2.000 <T | .500 <T | . | . | 4.000 | 4.500 |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| CONDUCTIVITY (UMHO/CM ) | | | DET'N LIMIT = 1 | | GUIDELINE = 400 (F2) | |
| JAN | . | 302 | 304 | 302 | 304 | 298 |
| FEB | . | 312 | 316 | 314 | 322 | 313 |
| MAR | 294 | 295 | 297 | 295 | 296 | 292 |
| APR | 279 | 276 | 280 | 279 | 276 | 279 |
| MAY | 289 | 291 | 292 | 292 | . | . |
| JUN | 292 | 297 | 300 | 297 | 299 | 296 |
| JUL | 291 | 297 | 298 | 298 | . | . |
| AUG | 288 | 294 | 302 | 294 | 297 | 295 |
| SEP | 289 | 295 | 297 | 295 | . | . |
| OCT | 294 | 298 | 302 | 300 | . | . |
| NOV | 294 | 305 | 306 | 306 | 313 | 304 |
| DEC | 311 | 311 | . | . | 306 | 303 |
| FLUORIDE (MG/L ) | | | DET'N LIMIT = .01 | | GUIDELINE = 2.400 (A1) | |
| JAN | . | .100 | .100 | .120 | .100 | .100 |
| FEB | . | .140 | .140 | .140 | .120 | .120 |
| MAR | .140 | .130 | .110 | .120 | .110 | .110 |
| APR | .120 | .090 | .090 | .090 | .090 | .090 |
| MAY | .120 | .110 | .110 | .110 | . | . |
| JUN | .110 | .110 | .110 | .110 | .110 | !IS |
| JUL | .120 | .120 | .120 | .110 | . | . |
| AUG | .120 | .120 | .120 | .120 | .120 | .120 |
| SEP | .100 | .100 | .100 | .120 | . | . |
| OCT | .120 | .120 | .120 | .120 | . | . |
| NOV | .100 | .100 | .080 | .080 | .100 | .100 |
| DEC | .120 | .120 | . | . | .120 | .120 |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| HARDNESS (MG/L ) | | | DET'N LIMIT = .500 | | GUIDELINE = 80-100 (A4) | |
| JAN | . | 128.000 | 129.000 | 130.000 | 130.000 | 126.000 |
| FEB | . | 133.000 | 137.000 | 133.000 | 136.000 | 138.000 |
| MAR | 138.000 | 138.000 | 133.000 | 134.000 | 134.000 | 125.000 |
| APR | 111.000 | 117.000 | 117.000 | 118.000 | 120.000 | 117.000 |
| MAY | 125.000 | 125.000 | 123.000 | 124.000 | . | . |
| JUN | 125.000 | 127.000 | 127.000 | 128.000 | 127.000 | !IS |
| JUL | 128.000 | 134.000 | 132.000 | 131.000 | . | . |
| AUG | 113.000 | 126.600 | 127.900 | 125.300 | 126.000 | 126.300 |
| SEP | 125.000 | 130.000 | 129.000 | 130.000 | . | . |
| OCT | 131.000 | 130.000 | 132.000 | 133.000 | . | . |
| NOV | 129.000 | 126.000 | 125.000 | 127.000 | 126.000 | 126.000 |
| DEC | 138.000 | 136.000 | . | . | 133.000 | 133.000 |
| IONCAL (UG/L ) | | | DET'N LIMIT = N/A | | GUIDELINE = N/A | |
| JAN | . | .000 NAF | .000 NAF | .000 NAF | .000 NAF | .000 NAF |
| FEB | . | .000 NAF | .000 NAF | .000 NAF | .000 NAF | .000 NAF |
| MAR | .000 NAF | .000 NAF | .000 NAF | .000 NAF | .000 NAF | .000 NAF |
| APR | .000 NAF | .000 NAF | .000 NAF | .000 NAF | .000 NAF | .000 NAF |
| MAY | .000 NAF | .000 NAF | .000 NAF | .000 NAF | . | . |
| JUN | .000 NAF | .000 NAF | .000 NAF | .000 NAF | .000 NAF | .000 NAF |
| JUL | .747 | 7.991 | 5.148 | 3.503 | . | . |
| AUG | 2.398 | 2.195 | 2.822 | 2.757 | 2.190 | 2.535 |
| SEP | .463 | 1.557 | 2.105 | 2.637 | . | . |
| OCT | 1.590 | .785 | .858 | .185 | . | . |
| NOV | 1.343 | 5.101 | 6.050 | 5.121 | 4.630 | 5.419 |
| DEC | 4.278 | 6.858 | . | . | 4.922 | 5.010 |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| LANGELIERS INDEX (UG/L ) | | | DET'N LIMIT = N/A | | GUIDELINE = N/A | |
| JAN | . | .136 NAF | .138 NAF | .139 NAF | .530 NAF | .102 NAF |
| FEB | . | .168 NAF | .290 NAF | .277 NAF | .283 NAF | .277 NAF |
| MAR | .445 NAF | .250 NAF | .212 NAF | .250 NAF | .312 NAF | .246 NAF |
| APR | .308 NAF | .239 NAF | .262 NAF | .273 NAF | .300 NAF | .325 NAF |
| MAY | .367 NAF | .271 NAF | .318 NAF | .408 NAF | . | . |
| JUN | .430 NAF | .317 NAF | .290 NAF | .316 NAF | .343 NAF | . |
| JUL | .463 | .185 | .289 | .189 | . | . |
| AUG | .441 | .321 | .268 | .277 | .311 | .347 |
| SEP | .346 | .204 | .261 | .242 | . | . |
| OCT | .477 | .439 | .442 | .432 | . | . |
| NOV | .439 | .332 | .323 | .355 | .373 | .477 |
| DEC | .490 | .391 | . | . | .409 | .492 |
| MAGNESIUM (MG/L ) | | | DET'N LIMIT = .050 | | GUIDELINE = 30 (F2) | |
| JAN | . | 8.500 | 8.700 | 8.600 | 8.500 | 8.300 |
| FEB | . | 8.700 | 8.900 | 8.600 | 8.900 | 9.000 |
| MAR | 9.050 | 8.950 | 8.750 | 8.750 | 8.650 | 8.300 |
| APR | 7.300 | 7.800 | 7.800 | 7.600 | 7.700 | 7.600 |
| MAY | 8.100 | 8.100 | 7.800 | 7.800 | . | . |
| JUN | 8.300 | 8.300 | 8.200 | 8.300 | 8.300 | !IS |
| JUL | 8.600 | 8.800 | 8.600 | 8.700 | . | . |
| AUG | 8.400 | 8.500 | 8.400 | 8.500 | 8.300 | 8.200 |
| SEP | 8.400 | 8.600 | 8.400 | 8.300 | . | . |
| OCT | 9.000 | 8.900 | 8.700 | 8.400 | . | . |
| NOV | 8.500 | 8.700 | 8.400 | 8.300 | 8.400 | 8.400 |
| DEC | 9.900 | 9.600 | . | . | 9.200 | 8.900 |

|  | WATER TREATMENT PLANT |  | DISTRIBUTION SYSTEM |  |  |  |
|---|---|---|---|---|---|---|
|  | RAW | TREATED | SITE 1 |  | SITE 2 |  |
|  |  |  | STANDING | FREE FLOW | STANDING | FREE FLOW |
| SODIUM (MG/L ) |  |  | DET'N LIMIT = .200 |  | GUIDELINE = 200 (C3) |  |
| JAN | . | 8.200 | 8.400 | 8.400 | 8.400 | 8.200 |
| FEB | . | 9.200 | 9.000 | 9.000 | 9.000 | 9.200 |
| MAR | 8.600 | 8.600 | 8.800 | 8.600 | 8.800 | 8.200 |
| APR | 7.600 | 8.000 | 7.800 | 8.000 | 7.600 | 7.800 |
| MAY | 8.400 | 8.200 | 8.200 | 8.400 | . | . |
| JUN | 8.800 | 8.600 | 8.800 | 8.600 | 8.800 | !IS |
| JUL | 8.800 | 8.600 | 8.800 | 8.800 | . | . |
| AUG | 8.200 | 8.200 | 8.400 | 8.400 | 8.600 | 8.400 |
| SEP | 8.400 | 8.600 | 8.600 | 8.800 | . | . |
| OCT | 9.600 | 9.000 | 8.800 | 8.800 | . | . |
| NOV | 8.600 | 9.000 | 9.200 | 9.200 | 9.000 | 9.000 |
| DEC | 9.000 | 8.800 | . | . | 8.800 | 8.600 |
| AMMONIUM TOTAL (MG/L ) |  |  | DET'N LIMIT = 0.002 |  | GUIDELINE = .05 (F2) |  |
| JAN | . | .018 | .306 | .016 | .882 | .018 |
| FEB | . | .006 <T | .138 | .006 <T | .358 | .006 <T |
| MAR | .020 | .018 | .198 | .036 | .042 | .028 |
| APR | .012 | .008 <T | .172 | .008 <T | .206 | .008 <T |
| MAY | .044 | .010 | .138 | .012 | . | . |
| JUN | .028 | .006 <T | .152 | .008 <T | .352 | .016 |
| JUL | .030 | .002 <T | .032 | .004 <T | . | . |
| AUG | .046 | .018 | .126 | .020 | .282 | .018 |
| SEP | .020 | .006 <T | .144 | .002 <T | . | . |
| OCT | .044 | .012 | .144 | .012 | . | . |
| NOV | .016 | .008 | .128 | .012 | 1.110 | .012 |
| DEC | .018 | .012 | . | . | .128 | .012 |

|  | WATER TREATMENT PLANT |  | DISTRIBUTION SYSTEM |  |  |  |
|---|---|---|---|---|---|---|
|  | RAW | TREATED | SITE 1 |  | SITE 2 |  |
|  |  |  | STANDING | FREE FLOW | STANDING | FREE FLOW |
| NITRITE (MG/L ) |  |  | DET'N LIMIT = 0.001 |  | GUIDELINE = 1.000 (A1) |  |
| JAN | . | .002 <T | .002 <T | .002 <T | .002 <T | .002 <T |
| FEB | . | .001 <T | .001 <T | .001 <T | .001 <T | .001 <T |
| MAR | .005 | .008 | .023 | .014 | .008 | .016 |
| APR | .003 <T | .001 <T | .002 <T | .001 <T | .001 <T | .001 <T |
| MAY | .030 | .006 | .008 | .006 | . | . |
| JUN | .005 | .001 <T | .001 <T | .001 <T | .001 <T | .002 <T |
| JUL | .004 <T | .001 <T | .002 <T | .002 <T | . | . |
| AUG | .006 | .003 <T | .011 | .003 <T | .003 <T | .004 <T |
| SEP | .002 <T | BDL | .001 <T | .001 <T | . | . |
| OCT | .005 | .006 | .007 | .009 | . | . |
| NOV | .002 | .002 | .005 | .008 | .007 | .008 |
| DEC | .004 <T | .002 <T | . | . | .002 <T | .002 <T |
| TOTAL NITRATES (MG/L ) |  |  | DET'N LIMIT = .020 |  | GUIDELINE = 10.000 (A1) |  |
| JAN | . | .245 | .620 | .230 | 1.280 | .300 |
| FEB | . | .275 | .435 | .270 | .695 | .275 |
| MAR | .190 | .215 | .445 | .220 | .255 | .230 |
| APR | .195 | .200 | .400 | .195 | .445 | .200 |
| MAY | .225 | .190 | .360 | .190 | . | . |
| JUN | .225 | .210 | .380 | .195 | .635 | .220 |
| JUL | .120 | .125 | .170 | .135 | . | . |
| AUG | .085 <T | .095 <T | .270 | .105 | .440 | .135 |
| SEP | .080 <T | .090 <T | .250 | .095 <T | . | . |
| OCT | .085 <T | .090 <T | .280 | .090 <T | . | . |
| NOV | .085 | .130 | .275 | .140 | 1.320 | .130 |
| DEC | .305 | .285 | . | . | .320 | .190 |

|  | WATER TREATMENT PLANT |  | DISTRIBUTION SYSTEM |  |  |  |
|---|---|---|---|---|---|---|
|  | RAW | TREATED | SITE 1 |  | SITE 2 |  |
|  |  |  | STANDING | FREE FLOW | STANDING | FREE FLOW |
| NITROGEN TOT KJELD (MG/L ) |  |  | DET'N LIMIT = .020 |  | GUIDELINE = N/A |  |
| JAN | . | .160 | .560 | .170 | .980 | .170 |
| FEB | . | .170 | .320 | .150 | .560 | .160 |
| MAR | .190 | .150 | .410 | .150 | .170 | .120 |
| APR | .280 | .160 | .360 | .200 | .380 | .140 |
| MAY | .210 | .200 | .030 | .180 | . | . |
| JUN | .270 | .190 | .340 | .170 | .540 | .140 |
| JUL | .280 | .230 | .260 | .200 | . | . |
| AUG | .240 | .220 | .300 | .200 | .440 | .160 |
| SEP | .260 | .220 | .420 | .180 | . | . |
| OCT | .280 | .190 | .320 | .170 | . | . |
| NOV | .550 | .910 | .520 | .920 | .460 | .800 |
| DEC | .350 | .180 | . | . | .300 | .150 |
| PH (DMSNLESS ) |  |  | DET'N LIMIT = N/A |  | GUIDELINE = 6.5-8.5(A4) |  |
| JAN | . | 8.000 | 8.010 | 8.000 | 8.390 | 7.980 |
| FEB | . | 8.010 | 8.110 | 8.110 | 8.100 | 8.090 |
| MAR | 8.260 | 8.080 | 8.060 | 8.090 | 8.150 | 8.120 |
| APR | 8.230 | 8.160 | 8.180 | 8.180 | 8.200 | 8.230 |
| MAY | 8.240 | 8.150 | 8.200 | 8.280 | . | . |
| JUN | 8.290 | 8.190 | 8.160 | 8.180 | 8.210 | 8.300 |
| JUL | 8.330 | 8.080 | 8.180 | 8.080 | . | . |
| AUG | 8.320 | 8.210 | 8.140 | 8.170 | 8.190 | 8.220 |
| SEP | 8.230 | 8.090 | 8.150 | 8.120 | . | . |
| OCT | 8.330 | 8.310 | 8.300 | 8.280 | . | . |
| NOV | 8.290 | 8.210 | 8.200 | 8.220 | 8.240 | 8.340 |
| DEC | 8.300 | 8.230 | . | . | 8.250 | 8.330 |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| PHOSPHORUS FIL REACT (MG/L ) | | | DET'N LIMIT = .0005 | | GUIDELINE = N/A | |
| JAN | . | .001 <T | . | . | . | . |
| FEB | . | BDL | . | . | . | . |
| MAR | .001 <T | .001 <T | . | . | . | . |
| APR | .002 <T | .000 <T | . | . | . | . |
| MAY | .003 | .000 <T | . | . | . | . |
| JUN | .003 | .002 <T | . | . | . | . |
| JUL | BDL | .000 <T | . | . | . | . |
| AUG | .002 <T | .002 <T | . | . | . | . |
| SEP | .000 <T | .000 <T | . | . | . | . |
| OCT | .001 <T | .001 <T | . | . | . | . |
| NOV | .001 | .000 | . | . | . | . |
| DEC | .005 | .001 <T | . | . | . | . |
| PHOSPHORUS TOTAL (MG/L ) | | | DET'N LIMIT = .002 | | GUIDELINE = .40 (F2) | |
| JAN | . | .003 <T | . | . | . | . |
| FEB | . | .004 <T | . | . | . | . |
| MAR | .008 <T | BDL | . | . | . | . |
| APR | .021 | .005 <T | . | . | . | . |
| MAY | .011 | .006 <T | . | . | . | . |
| JUN | .017 | .005 <T | . | . | . | . |
| JUL | .011 | .007 <T | . | . | . | . |
| AUG | .004 <T | .002 <T | . | . | . | . |
| SEP | BDL | BDL | . | . | . | . |
| OCT | .015 | .007 <T | . | . | . | . |
| NOV | .013 | .016 | . | . | . | . |
| DEC | .047 | .002 <T | . | . | . | . |

|  | WATER TREATMENT PLANT |  | DISTRIBUTION SYSTEM |  |  |  |
|---|---|---|---|---|---|---|
|  | RAW | TREATED | SITE 1 |  | SITE 2 |  |
|  |  |  | STANDING | FREE FLOW | STANDING | FREE FLOW |
| SULPHATE (MG/L ) |  |  | DET'N LIMIT = .200 |  | GUIDELINE = 500. (A3) |  |
| JUL | 24.490 | 27.210 | 27.670 | 26.870 | . | . |
| AUG | 23.570 | 26.300 | 26.080 | 25.970 | 24.760 | 24.700 |
| SEP | 23.290 | 26.580 | 25.670 | 25.800 | . | . |
| OCT | 25.000 | 27.200 | 27.600 | 27.500 | . | . |
| NOV | 23.900 | 27.400 | 27.200 | 27.200 | 25.800 | 25.600 |
| DEC | 30.500 | 36.000 | . | . | 31.000 | 31.000 |
| TURBIDITY (FTU ) |  |  | DET'N LIMIT = .02 |  | GUIDELINE = 1.00 (A1) |  |
| JAN | . | .080 <T | .370 | .110 | .750 | .620 |
| FEB | . | .200 | .210 | .110 | .580 | .600 |
| MAR | 1.470 | .170 | .400 | .140 | .750 | .720 |
| APR | 4.600 | .180 | .310 | .180 | .550 | .480 |
| MAY | .620 | .300 | .660 | .270 | . | . |
| JUN | 1.740 | .180 | .440 | .280 | .630 | !IS |
| JUL | 1.300 | .670 | .610 | .430 | . | . |
| AUG | .940 | .660 | .430 | .370 | .930 | .710 |
| SEP | .980 | .580 | .390 | .440 | . | . |
| OCT | 5.300 | .370 | .370 | .380 | . | . |
| NOV | 12.300 | .400 | .840 | .830 | .940 | .780 |
| DEC | 33.000 | .240 <T | . | . | .760 | .810 |

METALS

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| SILVER (UG/L ) | | | DET'N LIMIT = .020 | | GUIDELINE = 50. (A1) | |
| JAN | . | .030 <T | .030 <T | .020 <T | 3.100 | .040 <T |
| FEB | . | .050 <T | .030 <T | .020 <T | .580 | .040 <T |
| MAR | BDL | .100 <T | .060 <T | .030 <T | .040 <T | BDL |
| APR | BDL | BDL | BDL | BDL | BDL | .090 <T |
| MAY | !IS | BDL | BDL | BDL | . | . |
| JUN | BDL | BDL | BDL | BDL | .070 <T | .040 <T |
| JUL | BDL | BDL | .050 <T | BDL | . | . |
| AUG | BDL | BDL | .030 <T | BDL | 2.600 | BDL |
| SEP | .030 <T | .030 <T | BDL | .070 <T | . | . |
| OCT | BDL | BDL | BDL | .040 <T | . | . |
| NOV | BDL | .030 <T | BDL | BDL | BDL | BDL |
| DEC | BDL | BDL | . | . | BDL | BDL |
| ALUMINUM (UG/L ) | | | DET'N LIMIT = .050 | | GUIDELINE = 100.(A4) | |
| JAN | . | 87.000 | 81.200 | 64.960 | 55.680 | 54.520 |
| FEB | . | 88.160 | 63.800 | 56.840 | 47.560 | 47.560 |
| MAR | 38.280 | 105.560 | 88.160 | 84.680 | 1.972 | 70.760 |
| APR | 93.960 | 90.480 | 80.040 | 76.560 | 63.800 | 73.080 |
| MAY | !IS | 197.200 | 162.400 | 150.800 | . | . |
| JUN | 45.240 | 197.200 | 162.400 | 162.400 | 127.600 | 116.000 |
| JUL | 33.640 | 406.000 | 278.400 | 290.000 | . | . |
| AUG | 22.040 | 406.000 | 255.200 | 278.400 | 232.000 | 243.600 |
| SEP | 22.040 | 243.600 | 197.200 | 220.400 | . | . |
| OCT | 52.200 | 266.800 | 185.600 | 185.600 | . | . |
| NOV | 139.200 | 111.360 | 109.040 | 105.560 | 96.280 | 98.600 |
| DEC | 197.200 | 76.560 | . | . | 62.640 | 66.120 |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| ARSENIC (UG/L ) | | | DET'N LIMIT = 0.050 | | GUIDELINE = 50.0 (A1) | |
| JAN | . | .370 <T | .630 <T | .570 <T | .600 <T | .480 <T |
| FEB | . | .490 <T | .530 <T | .550 <T | .420 <T | .370 <T |
| MAR | .340 <T | .330 <T | .420 <T | .380 <T | BDL | .180 <T |
| APR | .590 <T | .590 <T | .710 <T | .630 <T | .550 <T | .640 <T |
| MAY | !IS | .550 <T | .600 <T | .690 <T | . | . |
| JUN | .340 <T | .210 <T | .150 <T | .240 <T | .100 <T | .300 <T |
| JUL | .430 <T | .380 <T | .360 <T | .360 <T | . | . |
| AUG | .870 <T | .680 <T | .620 <T | .720 <T | .570 <T | .370 <T |
| SEP | .780 <T | .640 <T | .590 <T | .640 <T | . | . |
| OCT | .950 <T | .550 <T | .670 <T | .550 <T | . | . |
| NOV | 1.100 | .530 <T | .490 <T | .560 <T | .430 <T | BDL |
| DEC | 1.300 | .700 <T | . | . | .650 <T | .430 <T |
| BARIUM (UG/L ) | | | DET'N LIMIT = 0.020 | | GUIDELINE = 1000. (A1) | |
| JAN | . | 22.000 | 23.000 | 21.000 | 21.000 | 20.000 |
| FEB | . | 19.000 | 20.000 | 19.000 | 19.000 | 18.000 |
| MAR | 20.000 | 19.000 | 19.000 | 19.000 | 3.800 | 17.000 |
| APR | 20.000 | 18.000 | 18.000 | 18.000 | 18.000 | 20.000 |
| MAY | !IS | 21.000 | 22.000 | 20.000 | . | . |
| JUN | 22.000 | 21.000 | 21.000 | 22.000 | 21.000 | 22.000 |
| JUL | 23.000 | 23.000 | 22.000 | 23.000 | . | . |
| AUG | 23.000 | 24.000 | 24.000 | 23.000 | 23.000 | 23.000 |
| SEP | 22.000 | 22.000 | 22.000 | 22.000 | . | . |
| OCT | 24.800 | 21.000 | 23.000 | 21.000 | . | . |
| NOV | 22.000 | 20.000 | 21.000 | 20.000 | 21.000 | 23.000 |
| DEC | 27.000 | 23.000 | . | . | 21.000 | 21.000 |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| BORON (UG/L ) | | | DET'N LIMIT = 0.200 | | GUIDELINE = 5000. (A1) | |
| JAN | . | 23.000 | 23.000 | 22.000 | 23.000 | 22.000 |
| FEB | . | 20.000 | 27.000 | 20.000 | 20.000 | 19.000 <T |
| MAR | 21.000 | 22.000 | 22.000 | 21.000 | 17.000 <T | 20.000 |
| APR | 21.000 | 20.000 <T | 20.000 <T | 23.000 | 18.000 <T | 22.000 |
| MAY | !IS | 20.000 <T | 24.000 | 19.000 <T | . | . |
| JUN | 24.000 | 35.000 | 31.000 | 37.000 | 25.000 | 21.000 |
| JUL | 21.000 | 21.000 | 20.000 <T | 20.000 <T | . | . |
| AUG | 57.000 | 24.000 | 24.000 | 26.000 | 24.000 | 40.000 |
| SEP | 22.000 | 21.000 | 22.000 | 24.000 | . | . |
| OCT | 24.800 | 32.000 | 40.000 | 41.000 | . | . |
| NOV | 66.000 | 68.000 | 37.000 | 25.000 | 28.000 | 77.000 |
| DEC | 60.000 | 57.000 | . | . | 54.000 | 52.000 |
| BERYLLIUM (UG/L ) | | | DET'N LIMIT = 0.010 | | GUIDELINE = .20 (H) | |
| JAN | . | BDL | BDL | BDL | BDL | BDL |
| FEB | . | .020 <T | .010 <T | BDL | .030 <T | BDL |
| MAR | .010 <T | .030 <T | .030 <T | .010 <T | BDL | .010 <T |
| APR | BDL | .030 <T | BDL | .020 <T | .020 <T | .050 <T |
| MAY | !IS | BDL | BDL | BDL | . | . |
| JUN | .030 <T | .040 <T | BDL | .040 <T | .030 <T | BDL |
| JUL | BDL | BDL | BDL | BDL | . | . |
| AUG | .140 <T | BDL | BDL | .020 <T | BDL | BDL |
| SEP | .020 <T | .020 <T | BDL | .020 <T | . | . |
| OCT | BDL | .020 <T | .030 <T | .110 <T | . | . |
| NOV | .120 <T | .090 <T | BDL | .020 <T | .080 <T | .070 <T |
| DEC | .180 <T | .180 <T | . | . | .180 <T | .120 <T |

|  | WATER TREATMENT PLANT |  | DISTRIBUTION SYSTEM |  |  |  |
|---|---|---|---|---|---|---|
|  | RAW | TREATED | SITE 1 |  | SITE 2 |  |
|  |  |  | STANDING | FREE FLOW | STANDING | FREE FLOW |
| CADMIUM (UG/L ) |  |  | DET'N LIMIT = 0.050 |  | GUIDELINE = 5.000 (A1) |  |
| JAN | . | .070 <T | .090 <T | BDL | .150 <T | BDL |
| FEB | . | BDL | .050 <T | BDL | .050 <T | BDL |
| MAR | BDL | BDL | .050 <T | BDL | BDL | BDL |
| APR | BDL | BDL | .080 <T | BDL | .080 <T | .070 <T |
| MAY | !IS | BDL | BDL | BDL | . | . |
| JUN | BDL | BDL | .070 <T | BDL | BDL | BDL |
| JUL | BDL | BDL | BDL | BDL | . | . |
| AUG | BDL | BDL | BDL | BDL | BDL | BDL |
| SEP | BDL | BDL | BDL | BDL | . | . |
| OCT | BDL | BDL | BDL | .060 <T | . | . |
| NOV | BDL | BDL | BDL | BDL | .080 <T | .130 <T |
| DEC | .090 <T | BDL | . | . | BDL | BDL |
| COBALT (UG/L ) |  |  | DET'N LIMIT = 0.020 |  | GUIDELINE = 1000 (H) |  |
| JAN | . | .150 <T | 49.000 | 55.000 | .470 <T | .150 <T |
| FEB | . | .020 <T | 25.000 | 31.000 | .110 <T | .050 <T |
| MAR | .200 <T | .940 | 32.000 | 32.000 | .020 <T | .240 <T |
| APR | .120 <T | .050 <T | 37.000 | 30.000 | .140 <T | .080 <T |
| MAY | !IS | 1.200 | 33.000 | 28.000 | . | . |
| JUN | .120 <T | .030 <T | .100 <T | .070 <T | .450 <T | .100 <T |
| JUL | .050 <T | .040 <T | .070 <T | .030 <T | . | . |
| AUG | .100 <T | .080 <T | .100 <T | .060 <T | .040 <T | .110 <T |
| SEP | .100 <T | .080 <T | .070 <T | .110 <T | . | . |
| OCT | .140 <T | .140 <T | .130 <T | .200 <T | . | . |
| NOV | .310 <T | .220 <T | .080 <T | .060 <T | .080 <T | .150 <T |
| DEC | .510 <T | .180 <T | . | . | .170 <T | .240 <T |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| CHROMIUM (UG/L ) | | | DET'N LIMIT = 0.100 | | GUIDELINE = 50. (A1) | |
| JAN | . | .220 <T | .290 <T | .200 <T | 4.800 | .190 <T |
| FEB | . | .140 <T | .770 <T | .190 <T | 1.200 | .140 <T |
| MAR | .230 <T | .260 <T | .690 <T | .240 <T | .210 <T | .200 <T |
| APR | .580 <T | .380 <T | .930 <T | 1.200 | 7.600 | .110 <T |
| MAY | !IS | .550 <T | 1.000 <T | .530 <T | . | . |
| JUN | .320 <T | 1.600 | 1.100 | 1.600 | 2.900 | .210 <T |
| JUL | .240 <T | .890 <T | .260 <T | .250 <T | . | . |
| AUG | 2.300 | .470 <T | .390 <T | .480 <T | 1.000 <T | 1.400 |
| SEP | .180 <T | .220 <T | .130 <T | .320 <T | . | . |
| OCT | .180 <T | 3.500 | 5.100 | 4.600 | . | . |
| NOV | 6.000 | 5.900 | 1.900 | .360 <T | 4.400 | 9.500 |
| DEC | 7.100 | 6.300 | . | . | 5.900 | 5.100 |
| COPPER (UG/L ) | | | DET'N LIMIT = .100 | | GUIDELINE = 1000 (A3) | |
| JAN | . | 1.200 | 19.000 | 2.900 | 35.000 | 10.000 |
| FEB | . | .950 <T | 17.000 | 2.700 | 26.000 | 5.800 |
| MAR | .870 <T | .670 <T | 11.000 | 2.700 | 5.500 | 5.300 |
| APR | 1.100 | .880 <T | 12.000 | 2.700 | 35.000 | 7.000 |
| MAY | !IS | 1.100 | 14.000 | 3.200 | . | . |
| JUN | 1.100 | .770 <T | 15.000 | 3.800 | 44.000 | 8.500 |
| JUL | 1.100 | 1.100 | 14.000 | 3.500 | . | . |
| AUG | 1.100 | .880 <T | 15.000 | 3.800 | 41.000 | 8.500 |
| SEP | 1.100 | 2.000 | 15.000 | 4.100 | . | . |
| OCT | 1.750 | .890 <T | 16.000 | 5.200 | . | . |
| NOV | 1.700 | 1.000 <T | 20.000 | 5.800 | 46.000 | 8.700 |
| DEC | 2.100 | 1.100 | . | . | 43.000 | 9.300 |

|  | WATER TREATMENT PLANT |  | DISTRIBUTION SYSTEM |  |  |  |
|---|---|---|---|---|---|---|
|  | RAW | TREATED | SITE 1 |  | SITE 2 |  |
|  |  |  | STANDING | FREE FLOW | STANDING | FREE FLOW |
| IRON (UG/L ) |  |  | DET'N LIMIT = 4.000 |  | GUIDELINE = 300. (A3) |  |
| JAN | . | 7.000 <T | 34.000 <T | 33.000 <T | 180.000 | 180.000 |
| FEB | . | BDL | 9.700 <T | 11.000 <T | 150.000 | 150.000 |
| MAR | 36.000 <T | 4.700 <T | 16.000 <T | 14.000 <T | BDL | 200.000 |
| APR | 95.000 | 10.000 <T | 75.000 | 72.000 | 150.000 | 150.000 |
| MAY | !IS | 9.300 <T | 95.000 | 92.000 | . | . |
| JUN | 48.000 <T | BDL | 67.000 | 53.000 | 140.000 | 99.000 |
| JUL | 35.000 <T | 21.000 <T | 69.000 | 78.000 | . | . |
| AUG | 28.000 <T | BDL | 62.000 | 71.000 | 96.000 | 100.000 |
| SEP | 25.000 <T | BDL | 61.000 | 99.000 | . | . |
| OCT | 61.000 | 5.700 <T | 80.000 | 88.000 | . | . |
| NOV | 240.000 | BDL | 96.000 | 120.000 | 160.000 | 130.000 |
| DEC | 350.000 | 5.500 <T | . | . | 150.000 | 150.000 |
| MERCURY (UG/L ) |  |  | DET'N LIMIT = 0.010 |  | GUIDELINE = 1.000 (A1) |  |
| JAN | . | .010 | . | .030 | . | .010 |
| FEB | . | .010 | . | .010 | . | BDL |
| MAR | .010 | .010 | . | .020 | . | BDL |
| APR | .010 | .020 | . | .030 | . | BDL |
| MAY | BDL | .020 <T | . | .020 <T | . | . |
| JUN | BDL | BDL | . | .040 <T | . | BDL |
| JUL | .050 <T | .040 <T | . | .050 <T | . | . |
| AUG | .020 <T | .030 <T | . | .030 <T | . | BDL |
| SEP | .030 <T | .040 <T | . | .040 <T | . | . |
| OCT | .030 <T | .030 <T | . | .030 <T | . | . |
| NOV | .030 <T | .060 | . | .040 <T | . | BDL |
| DEC | .030 <T | .050 <T | . | . | . | .020 <T |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| MANGANESE (UG/L ) | | | DET'N LIMIT = .050 | | GUIDELINE = 50.0 (A3) | |
| JAN | . | .700 | 33.000 | 34.000 | 4.300 | 4.200 |
| FEB | . | .690 | 16.000 | 19.000 | 3.000 | 3.300 |
| MAR | 2.100 | 1.000 | 21.000 | 21.000 | .060 <T | 4.700 |
| APR | 4.600 | 1.000 | 31.000 | 27.000 | 2.800 | 2.900 |
| MAY | !IS | 1.800 | 30.000 | 27.000 | . | . |
| JUN | 5.600 | .450 <T | 8.300 | 8.400 | 3.200 | 2.900 |
| JUL | 4.500 | 2.500 | 7.500 | 9.700 | . | . |
| AUG | 6.400 | 1.300 | 11.000 | 12.000 | 2.600 | 3.200 |
| SEP | 4.200 | .600 | 11.000 | 16.000 | . | . |
| OCT | 11.000 | 1.500 | 12.000 | 14.000 | . | . |
| NOV | 16.000 | .620 | 12.000 | 12.000 | 2.200 | 1.900 |
| DEC | 30.000 | .690 | . | . | 1.900 | 1.700 |
| MOLYBDENUM (UG/L ) | | | DET'N LIMIT = 0.020 | | GUIDELINE = 500 (H) | |
| JAN | . | 1.200 | 1.200 | 1.200 | 1.100 | 1.100 |
| FEB | . | 1.100 | 1.100 | 1.000 | 1.000 | .950 |
| MAR | 1.100 | 1.200 | 1.100 | 1.100 | .870 | 1.000 |
| APR | .920 | .970 | 1.000 | .990 | .850 | 1.100 |
| MAY | !IS | 1.100 | 1.200 | 1.100 | . | . |
| JUN | 1.000 | 1.200 | 1.100 | 1.000 | 1.100 | 1.100 |
| JUL | 1.200 | 1.200 | 1.200 | 1.200 | . | . |
| AUG | 1.200 | 1.200 | 1.300 | 1.100 | 1.000 | 1.100 |
| SEP | 1.200 | 1.300 | 1.100 | 1.200 | . | . |
| OCT | 1.100 | 1.200 | 1.000 | 1.200 | . | . |
| NOV | 1.000 | 1.200 | 1.100 | 1.100 | 1.100 | 1.100 |
| DEC | .730 | 1.200 | . | . | .940 | 1.100 |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| NICKEL (UG/L ) | | | DET'N LIMIT = 0.100 | | GUIDELINE = 50. (F3) | |
| JAN | . | .740 <T | 1.500 | .870 <T | 140.000 | .600 <T |
| FEB | . | .460 <T | .680 <T | .500 <T | 17.000 | .380 <T |
| MAR | 1.200 <T | .940 <T | .940 <T | .710 <T | .120 <T | .880 <T |
| APR | 1.200 <T | 1.200 <T | 1.600 | 1.000 <T | 1.300 <T | .870 <T |
| MAY | !IS | .320 <T | .760 <T | 1.000 <T | . | . |
| JUN | .460 <T | BDL | .610 <T | BDL | .510 <T | .260 <T |
| JUL | .380 <T | BDL | .690 <T | .180 <T | . | . |
| AUG | .230 <T | BDL | 5.900 | BDL | 4.100 | BDL |
| SEP | .860 <T | .950 <T | 1.700 <T | .570 <T | . | . |
| OCT | .750 <T | 1.200 <T | .980 <T | .710 <T | . | . |
| NOV | .910 <T | .710 <T | .860 <T | .320 <T | .700 <T | 1.600 <T |
| DEC | 2.100 | 1.400 <T | . | . | 1.100 <T | 1.200 <T |
| LEAD (UG/L ) | | | DET'N LIMIT = 0.050 | | GUIDELINE = 50. (A1) | |
| JAN | . | .050 <T | 1.800 | .240 | 3.100 | |
| FEB | . | .030 <T | 1.500 | .220 | 1.100 | .120 <T |
| MAR | .070 <T | .110 <T | 1.200 | .250 | .110 <T | .130 <T |
| APR | .170 <T | BDL | 1.300 | .290 | 1.100 | .260 |
| MAY | !IS | .110 <T | 1.900 | .390 | . | . |
| JUN | .150 <T | BDL | 2.100 | .440 | 3.000 | .290 |
| JUL | .070 <T | .250 | 1.600 | .510 | . | . |
| AUG | .100 <T | .060 <T | 2.200 | .520 | 2.400 | .500 |
| SEP | .130 <T | .110 <T | 1.700 | .920 | . | . |
| OCT | .340 | BDL | 2.000 | .530 | . | . |
| NOV | .570 | .070 <T | 1.700 | .460 | 3.000 | .380 |
| DEC | 1.100 | BDL | . | . | 1.800 | .250 |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| ANTIMONY (UG/L ) | | | DET'N LIMIT = .050 | | GUIDELINE = 146. (D4) | |
| JAN | . | .160 <T | .310 | .430 | .160 <T | .140 <T |
| FEB | . | .190 <T | .280 | .280 | .170 <T | .190 <T |
| MAR | .200 | .230 | .270 | .260 | .120 <T | .160 <T |
| APR | .180 <T | .180 <T | .280 | .230 | .180 <T | .220 |
| MAY | !IS | .220 | .360 | .290 | . | . |
| JUN | .180 <T | .200 <T | .240 | .200 <T | .200 <T | .240 |
| JUL | .210 | .220 | .250 | .200 <T | . | . |
| AUG | .770 | .740 | .750 | .730 | .750 | .650 |
| SEP | .590 | .590 | .540 | .600 | . | . |
| OCT | .610 | .550 | .690 | .590 | . | . |
| NOV | .600 | .810 | .710 | .580 | .600 | .600 |
| DEC | .260 | .420 | . | . | .380 | .380 |
| SELENIUM (UG/L ) | | | DET'N LIMIT = 0.200 | | GUIDELINE = 10. (A1) | |
| JAN | . | 1.200 <T | .940 <T | 1.600 <T | 1.100 <T | .770 <T |
| FEB | . | .670 <T | 1.100 <T | .920 <T | 1.100 <T | 1.100 <T |
| MAR | .470 <T | 1.000 <T | .850 <T | .970 <T | .380 <T | .220 <T |
| APR | .410 <T | 1.100 <T | 1.700 <T | 2.400 <T | 1.100 <T | 1.100 <T |
| MAY | !IS | 2.400 <T | 3.400 <T | 2.300 <T | . | . |
| JUN | .730 <T | .920 <T | 1.200 <T | BDL | 1.400 <T | BDL |
| JUL | 1.100 <T | 1.800 <T | 2.300 <T | 2.400 <T | . | . |
| AUG | BDL | BDL | BDL | .890 <T | BDL | 1.500 <T |
| SEP | BDL | .240 <T | .290 <T | 2.100 <T | . | . |
| OCT | BDL | 2.800 <T | 5.100 <T | 3.000 <T | . | . |
| NOV | .390 <T | 2.600 <T | 1.900 <T | 2.300 <T | 1.500 <T | 4.900 <T |
| DEC | BDL | 2.900 <T | . | . | 1.000 <T | 2.300 <T |

|  | WATER TREATMENT PLANT |  | DISTRIBUTION SYSTEM |  |  |  |
|---|---|---|---|---|---|---|
|  | RAW | TREATED | SITE 1 |  | SITE 2 |  |
|  |  |  | STANDING | FREE FLOW | STANDING | FREE FLOW |
| STRONTIUM (UG/L ) |  |  | DET'N LIMIT = .050 |  | GUIDELINE = 2000.(H) |  |
| JAN | . | 200.000 | 190.000 | 190.000 | 200.000 | 200.000 |
| FEB | . | 160.000 | 160.000 | 160.000 | 170.000 | 170.000 |
| MAR | 170.000 | 170.000 | 170.000 | 170.000 | 61.000 | 170.000 |
| APR | 160.000 | 160.000 | 170.000 | 160.000 | 150.000 | 170.000 |
| MAY | !IS | 160.000 | 170.000 | 170.000 | . | . |
| JUN | 160.000 | 160.000 | 160.000 | 160.000 | 160.000 | 190.000 |
| JUL | 170.000 | 170.000 | 170.000 | 180.000 | . | . |
| AUG | 180.000 | 180.000 | 180.000 | 180.000 | 170.000 | 180.000 |
| SEP | 170.000 | 180.000 | 170.000 | 190.000 | . | . |
| OCT | 179.000 | 180.000 | 190.000 | 180.000 | . | . |
| NOV | 180.000 | 180.000 | 170.000 | 170.000 | 180.000 | 190.000 |
| DEC | 190.000 | 180.000 | . | . | 170.000 | 170.000 |
| TITANIUM (UG/L ) |  |  | DET'N LIMIT = .050 |  | GUIDELINE = N/A |  |
| JAN | . | 3.800 | 16.000 | 27.000 | 3.900 | 3.900 |
| FEB | . | 3.800 | 8.200 | 10.000 | 3.900 | 3.600 |
| MAR | 3.200 | 2.500 | 8.400 | 9.700 | .420 <T | 1.900 |
| APR | 6.200 | 2.100 | 9.800 | 9.300 | 2.800 | 2.000 |
| MAY | !IS | 3.100 | 9.900 | 9.300 | . | . |
| JUN | 5.300 | 3.000 | 3.000 | 3.100 | 3.100 | 2.800 |
| JUL | 3.600 | 2.400 | 2.000 <T | 1.900 <T | . | . |
| AUG | 9.800 | 8.800 | 8.900 | 7.900 | 8.200 | 9.500 |
| SEP | 5.300 | 4.800 | 4.900 | 4.300 | . | . |
| OCT | 4.350 | 2.700 | 2.900 | 3.200 | . | . |
| NOV | 9.600 | 5.500 | 5.700 | 5.400 | 5.500 | 4.200 |
| DEC | 12.000 | 3.000 | . | . | 2.600 | 2.500 |

| | WATER TREATMENT PLANT | | | DISTRIBUTION SYSTEM | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| THALLIUM (UG/L ) | | | DET'N LIMIT = .010 | | GUIDELINE = 13. (D4) | |
| JAN | . | .020 <T | .010 <T | .010 <T | BDL | BDL |
| FEB | . | .020 <T | .030 <T | .010 <T | .020 <T | .010 <T |
| MAR | .020 <T | .010 <T | .020 <T | .020 <T | BDL | BDL |
| APR | BDL | BDL | BDL | BDL | BDL | BDL |
| MAY | !IS | BDL | BDL | BDL | . | . |
| JUN | BDL | BDL | .020 <T | BDL | BDL | .020 <T |
| JUL | .020 <T | BDL | BDL | .020 <T | . | . |
| AUG | .020 <T | BDL | .020 <T | BDL | BDL | BDL |
| SEP | .020 <T | BDL | BDL | .030 <T | . | . |
| OCT | BDL | BDL | BDL | BDL | . | . |
| NOV | BDL | BDL | BDL | BDL | BDL | BDL |
| DEC | BDL | BDL | . | . | BDL | BDL |
| URANIUM (UG/L ) | | | DET'N LIMIT = .020 | | GUIDELINE = 20. (A2) | |
| JAN | . | .340 | .360 | .340 | .310 | .340 |
| FEB | . | .400 | .360 | .380 | .360 | .350 |
| MAR | .320 | .360 | .340 | .350 | .090 <T | .290 |
| APR | .310 | .320 | .290 | .320 | .260 | .360 |
| MAY | !IS | .380 | .360 | .380 | . | . |
| JUN | .370 | .460 | .340 | .390 | .330 | .400 |
| JUL | .350 | .370 | .360 | .380 | . | . |
| AUG | .380 | .430 | .370 | .330 | .380 | .360 |
| SEP | .350 | .320 | .310 | .360 | . | . |
| OCT | .390 | .310 | .360 | .370 | . | . |
| NOV | .320 | .300 | .290 | .330 | .280 | .290 |
| DEC | .360 | .320 | . | . | .290 | .280 |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| VANADIUM (UG/L ) | | | DET'N LIMIT = .050 | | GUIDELINE = 100 (H) | |
| JAN | . | .290 <T | .280 <T | .270 <T | .250 <T | .230 <T |
| FEB | . | .230 <T | .160 <T | .170 <T | .150 <T | .140 <T |
| MAR | .210 <T | .310 <T | .230 <T | .220 <T | .100 <T | .230 <T |
| APR | .320 <T | .250 <T | .240 <T | .210 <T | .180 <T | .180 <T |
| MAY | !IS | .250 <T | .200 <T | .230 <T | . | . |
| JUN | .180 <T | .240 <T | .190 <T | .160 <T | .150 <T | .170 <T |
| JUL | .230 <T | .410 <T | .350 <T | .290 <T | . | . |
| AUG | .210 <T | .430 <T | .310 <T | .340 <T | .210 <T | .270 <T |
| SEP | .220 <T | .450 <T | .330 <T | .390 <T | . | . |
| OCT | .220 <T | .540 | .400 <T | .400 <T | . | . |
| NOV | .470 <T | .400 <T | .310 <T | .320 <T | .260 <T | .320 <T |
| DEC | .820 | .510 | . | . | .280 <T | .310 <T |
| ZINC (UG/L ) | | | DET'N LIMIT = .001 | | GUIDELINE = 5000. (A3) | |
| JAN | . | 1.500 | 14.000 | 2.300 | 41.000 | 9.600 |
| FEB | . | 1.600 | 12.000 | 1.700 | 39.000 | 6.900 |
| MAR | 1.100 | .780 <T | 8.200 | 3.000 | .780 <T | 5.500 |
| APR | 1.500 | 1.100 | 8.000 | 1.900 | 44.000 | 8.000 |
| MAY | !IS | 1.700 | 10.000 | 2.500 | . | . |
| JUN | 1.500 | .660 <T | 12.000 | 3.000 | 42.000 | 7.000 |
| JUL | 1.500 | 1.700 | 12.000 | 2.600 | . | . |
| AUG | 1.100 | .880 <T | 13.000 | 1.800 | 31.000 | 5.500 |
| SEP | 1.800 | 2.000 | 11.000 | 2.600 | . | . |
| OCT | 3.260 | .800 <T | 10.000 | 3.200 | . | . |
| NOV | 3.000 | .610 <T | 15.000 | 2.600 | 43.000 | 8.000 |
| DEC | 4.500 | 1.600 | . | . | 47.000 | 9.300 |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| | PESTICIDES & PCB | | | | | |
| ALPHA BHC (NG/L ) | | | DET'N LIMIT = 1.000 | | GUIDELINE = 700 (G) | |
| JAN | . | 2.000 <T | . | BDL | . | 2.000 <T |
| FEB | . | 1.000 <T | . | 2.000 <T | . | 1.000 <T |
| MAR | BDL | 1.000 <T | . | !NR | . | BDL |
| APR | 1.000 <T | 1.000 <T | . | !SM | . | BDL |
| MAY | 2.000 <T | 1.000 <T | . | 2.000 <T | . | . |
| JUN | 2.000 <T | 1.000 <T | . | 1.000 <T | . | BDL |
| JUL | BDL | 3.000 <T | . | BDL | . | . |
| AUG | 1.000 <T | BDL | . | !LA | . | !LA |
| SEP | 1.000 <T | BDL | . | !RE | . | . |
| OCT | BDL | BDL | . | BDL | . | . |
| NOV | BDL | 1.000 <T | . | BDL | . | BDL |
| DEC | 2.000 <T | 2.000 <T | . | . | . | 1.000 <T |
| LINDANE (NG/L ) | | | DET'N LIMIT = 1.000 | | GUIDELINE = 4000 (A1) | |
| JAN | . | BDL | . | BDL | . | BDL |
| FEB | . | BDL | . | BDL | . | BDL |
| MAR | BDL | BDL | . | !NR | . | BDL |
| APR | BDL | BDL | . | !SM | . | BDL |
| MAY | BDL | BDL | . | BDL | . | . |
| JUN | BDL | BDL | . | BDL | . | BDL |
| JUL | BDL | BDL | . | BDL | . | . |
| AUG | BDL | BDL | . | !LA | . | !LA |
| SEP | BDL | BDL | . | !RE | . | . |
| OCT | BDL | BDL | . | BDL | . | . |
| NOV | BDL | BDL | . | BDL | . | BDL |
| DEC | 1.000 <T | 1.000 <T | . | . | . | BDL |

|  | WATER TREATMENT PLANT |  | DISTRIBUTION SYSTEM |  |  |  |
|---|---|---|---|---|---|---|
|  | RAW | TREATED | SITE 1 |  | SITE 2 |  |
|  |  |  | STANDING | FREE FLOW | STANDING | FREE FLOW |
| PHENOLICS (UG/L PHENOLICS ) |  |  | DET'N LIMIT = 0.2 |  | GUIDELINE = 2.00 (A3) |  |
| JAN | . | BDL | . | . | . | . |
| FEB | . | .600 <T | . | . | . | . |
| MAR | BDL | BDL | . | . | . | . |
| APR | .200 <T | .200 <T | . | . | . | . |
| MAY | .600 <T | .600 <T | . | . | . | . |
| JUN | 1.400 | 1.400 | . | . | . | . |
| JUL | .600 <T | .800 <T | . | . | . | . |
| AUG | 2.000 | 2.000 | . | . | . | . |
| SEP | BDL | BDL | . | . | . | . |
| OCT | 1.400 | 1.200 | . | . | . | . |
| NOV | .200 <T | .200 <T | . | . | . | . |
| DEC | .800 | .800 | . | . | . | . |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| | VOLATILES | | | | | |
| BENZENE (UG/L | ) | | DET'N LIMIT = .050 | | GUIDELINE = 5.0 (B1) | |
| MAR | BDL | BDL | . | !NR | . | BDL |
| APR | BDL | BDL | . | BDL | . | BDL |
| MAY | BDL | BDL | . | BDL | . | . |
| JUN | BDL | BDL | . | BDL | . | BDL |
| JUL | BDL | .050 <T | . | BDL | . | . |
| AUG | BDL | BDL | . | BDL | . | BDL |
| SEP | BDL | BDL | . | BDL | . | . |
| OCT | BDL | BDL | . | BDL | . | . |
| NOV | BDL | BDL | . | BDL | . | BDL |
| DEC | BDL | BDL | . | . | . | BDL |
| TOLUENE (UG/L | ) | | DET'N LIMIT = .050 | | GUIDELINE = 24.0 (B4) | |
| MAR | BDL | BDL | . | !NR | . | BDL |
| APR | BDL | .050 UCS | . | .050 UCS | . | BDL |
| MAY | BDL | BDL | . | BDL | . | . |
| JUN | BDL | BDL | . | .050 <T | . | BDL |
| JUL | BDL | .100 <T | . | BDL | . | . |
| AUG | BDL | BDL | . | BDL | . | BDL |
| SEP | BDL | BDL | . | BDL | . | . |
| OCT | BDL | BDL | . | BDL | . | . |
| NOV | BDL | BDL | . | BDL | . | BDL |
| DEC | BDL | .050 <T | . | . | . | .050 <T |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| ETHYLBENZENE (UG/L ) | | | DET'N LIMIT = .050 | | GUIDELINE = 2.4 (B4) | |
| MAR | BDL | BDL | . | !NR | . | BDL |
| APR | BDL | BDL | . | BDL | . | BDL |
| MAY | BDL | BDL | . | BDL | . | . |
| JUN | BDL | BDL | . | BDL | . | .050 <T |
| JUL | BDL | BDL | . | BDL | . | . |
| AUG | BDL | BDL | . | BDL | . | BDL |
| SEP | BDL | BDL | . | BDL | . | . |
| OCT | .100 <T | .150 <T | . | BDL | . | . |
| NOV | BDL | BDL | . | BDL | . | .050 <T |
| DEC | BDL | .050 <T | . | . | . | BDL |
| STYRENE (UG/L ) | | | DET'N LIMIT = .050 | | GUIDELINE = 46.5 (D2) | |
| OCT | .600 | .900 | . | .100 <T | . | . |
| NOV | .200 <T | .050 <T | . | .200 <T | . | .450 <T |
| DEC | .100 <T | .100 <T | . | . | . | .100 <T |
| CHLOROFORM (UG/L ) | | | DET'N LIMIT = .100 | | GUIDELINE = 350 (A1+) | |
| MAR | BDL | 22.400 | . | !NR | . | 17.200 |
| APR | BDL | 19.200 | . | 14.300 | . | 12.700 |
| MAY | BDL | 18.000 | . | 15.400 | . | . |
| JUN | BDL | 21.300 | . | 14.600 | . | 15.200 |
| JUL | BDL | 33.100 | . | 19.800 | . | . |
| AUG | BDL | 30.500 | . | 23.500 | . | 23.900 |
| SEP | BDL | 22.500 | . | 18.400 | . | . |
| OCT | 1.400 | 23.400 | . | 20.100 | . | . |
| NOV | .400 <T | 17.600 | . | 13.500 | . | 14.400 |
| DEC | BDL | 21.600 | . | . | . | 11.800 |

| | WATER TREATMENT PLANT | | DISTRIBUTION SYSTEM | | | |
|---|---|---|---|---|---|---|
| | RAW | TREATED | SITE 1 | | SITE 2 | |
| | | | STANDING | FREE FLOW | STANDING | FREE FLOW |
| CARBON TETRACHLORIDE (UG/L ) | | | DET'N LIMIT = .200 | | GUIDELINE = 5.0 (D1) | |
| MAR | BDL | BDL | . | !NR | . | BDL |
| APR | BDL | BDL | . | BDL | . | BDL |
| MAY | BDL | BDL | . | BDL | . | . |
| JUN | BDL | BDL | . | BDL | . | BDL |
| JUL | BDL | BDL | . | BDL | . | . |
| AUG | BDL | BDL | . | BDL | . | BDL |
| SEP | BDL | BDL | . | BDL | . | . |
| OCT | BDL | BDL | . | BDL | . | . |
| NOV | BDL | BDL | . | BDL | . | BDL |
| DEC | BDL | BDL | . | . | . | .400 <T |
| DICHLOROBROMOMETHANE (UG/L ) | | | DET'N LIMIT = .050 | | GUIDELINE = 350 (A1+) | |
| MAR | BDL | 14.200 | . | !NR | . | 10.600 |
| APR | BDL | 11.850 | . | 9.550 | . | 8.050 |
| MAY | BDL | 11.350 | . | 9.900 | . | . |
| JUN | BDL | 12.550 | . | 9.500 | . | 8.400 |
| JUL | BDL | 18.100 | . | 13.650 | . | . |
| AUG | BDL | 15.900 | . | 13.800 | . | 11.300 |
| SEP | BDL | 13.500 | . | 11.350 | . | . |
| OCT | .800 | 13.150 | . | 12.400 | . | . |
| NOV | .100 <T | 11.500 | . | 9.450 | . | 8.700 |
| DEC | BDL | 12.650 | . | . | . | 6.800 |

|  | WATER TREATMENT PLANT |  | DISTRIBUTION SYSTEM |  |  |  |
|---|---|---|---|---|---|---|
|  | RAW | TREATED | SITE 1 |  | SITE 2 |  |
|  |  |  | STANDING | FREE FLOW | STANDING | FREE FLOW |
| CHLORODIBROMOMETHANE (UG/L ) |  |  | DET'N LIMIT = .100 |  | GUIDELINE = 350 (A1+) |  |
| MAR | BDL | 7.300 | . | !NR | . | 5.000 |
| APR | BDL | 6.400 | . | 6.100 | . | 3.800 |
| MAY | BDL | 4.000 | . | 3.900 | . | . |
| JUN | BDL | 6.900 | . | 5.300 | . | 4.000 |
| JUL | BDL | 5.200 | . | 5.200 | . | . |
| AUG | BDL | 8.600 | . | 7.300 | . | 6.500 |
| SEP | BDL | 6.200 | . | 5.400 | . | . |
| OCT | .500 <T | 5.700 | . | 5.800 | . | . |
| NOV | BDL | 4.600 | . | 4.000 | . | 3.500 |
| DEC | BDL | 4.600 | . | . | . | 3.000 |
| T-CHLOROETHYLENE (UG/L ) |  |  | DET'N LIMIT = .050 |  | GUIDELINE = 10.0 (C2) |  |
| MAR | BDL | BDL | . | !NR | . | BDL |
| APR | BDL | BDL | . | BDL | . | BDL |
| MAY | BDL | BDL | . | . | . | . |
| JUN | BDL | BDL | . | BDL | . | BDL |
| JUL | BDL | BDL | . | BDL | . | . |
| AUG | BDL | BDL | . | BDL | . | .050 <T |
| SEP | BDL | BDL | . | BDL | . | . |
| OCT | BDL | BDL | . | BDL | . | . |
| NOV | BDL | BDL | . | BDL | . | BDL |
| DEC | BDL | BDL | . | . | . | BDL |
| BROMOFORM (UG/L ) |  |  | DET'N LIMIT = .200 |  | GUIDELINE = 350 (A1+) |  |
| MAR | BDL | .400 <T | . | !NR | . | .400 <T |
| APR | BDL | .400 <T | . | .400 <T | . | .200 <T |
| MAY | BDL | .200 <T | . | .400 <T | . | . |
| JUN | BDL | .400 <T | . | .400 <T | . | .200 <T |
| JUL | BDL | .200 <T | . | .400 <T | . | . |
| AUG | BDL | .600 <T | . | .600 <T | . | .400 <T |
| SEP | BDL | .600 <T | . | .600 <T | . | . |
| OCT | BDL | .600 <T | . | .600 <T | . | . |
| NOV | BDL | .400 <T | . | .400 <T | . | .400 <T |
| DEC | BDL | BDL | . | . | . | BDL |

|  | WATER TREATMENT PLANT |  | DISTRIBUTION SYSTEM |  |  |  |
|---|---|---|---|---|---|---|
|  | RAW | TREATED | SITE 1 |  | SITE 2 |  |
|  |  |  | STANDING | FREE FLOW | STANDING | FREE FLOW |
| TOTL TRIHALOMETHANES (UG/L ) |  |  | DET'N LIMIT = .500 |  | GUIDELINE = 350 (A1) |  |
| MAR | BDL | 44.300 | . | !NR | . | 33.200 |
| APR | BDL | 37.850 | . | 30.350 | . | 24.750 |
| MAY | BDL | 33.550 | . | 29.600 | . | . |
| JUN | BDL | 41.150 | . | 29.800 | . | 27.800 |
| JUL | BDL | 56.600 | . | 39.050 | . | . |
| AUG | BDL | 55.600 | . | 45.200 | . | 42.100 |
| SEP | BDL | 42.800 | . | 35.750 | . | . |
| OCT | 2.700 <T | 42.850 | . | 38.900 | . | . |
| NOV | .500 <T | 34.100 | . | 27.350 | . | 27.000 |
| DEC | BDL | 38.850 | . | . | . | 21.600 |

## Table 6

| SCAN/PARAMETER | UNIT | DETECTION LIMIT | GUIDELINE |
|---|---|---|---|
| **BACTERIOLOGICAL** | | | |
| STANDARD PLATE COUNT MEMBRANE FILTRATION | CT/ML | 0 | 500/ML(A1) |
| P/A BOTTLE | | 0 | 0 (A1*) |
| TOTAL COLIFORM MEMBRANE FILTRATION | CT/100ML | 0 | 5/100mL(A1) |
| TOTAL COLIFORM BACKGROUND MF | CT/100ML | 0 | N/A |
| **CHLOROAROMATICS** | | | |
| HEXACHLOROBUTADIENE | NG/L | 1.000 | 450. (D4) |
| 1,2,3-TRICHLOROBENZENE | NG/L | 5.000 | 10000 (I) |
| 1,2,3,4-TETRACHLOROBENZENE | NG/L | 1.000 | 10000 (I) |
| 1,2,3,5-TETRACHLOROBENZENE | NG/L | 1.000 | 10000 (I) |
| 1,2,4-TRICHLOROBENZENE | NG/L | 5.000 | 10000 (I) |
| 1,2,4,5-TETRACHLOROBENZENE | NG/L | 1.000 | 38000 (D4) |
| 1,3,5-TRICHLOROBENZENE | NG/L | 5.000 | 10000 (D4) |
| HEXACHLOROBENZENE | NG/L | 1.0 | 10. (C1) |
| HEXACHLOROETHANE | NG/L | 1.000 | 1900. (D4) |
| OCTACHLOROSTYRENE | NG/L | 1.000 | N/A |
| PENTACHLOROBENZENE | NG/L | 1.000 | 74000 (D4) |
| 2,3,6-TRICHLOROTOLUENE | NG/L | 5.000 | N/A |
| 2,4,5-TRICHLOROTOLUENE | NG/L | 5.000 | N/A |
| 2,6,A-TRICHLOROTOLUENE | NG/L | 5.000 | N/A |
| **CHLOROPHENOLS** | | | |
| 2,3,4-TRICHLOROPHENOL | NG/L | 50. | N/A |
| 2,3,4,5-TETRACHLOROPHENOL | NG/L | 50. | N/A |
| 2,3,5,6-TETRACHLOROPHENOL | NG/L | 50. | N/A |
| 2,4,5-TRICHLOROPHENOL | NG/L | 50. | 2600000 (D4) |
| 2,4,6-TRICHLOROPHENOL | NG/L | 50. | 5000. (B1) |
| PENTACHLOROPHENOL | NG/L | 50. | 60000. (B1) |
| **CHEMISTRY (FLD)** | | | |
| FIELD COMBINED CHLORINE RESIDUAL | MG/L | N/A | N/A |
| FIELD FREE CHLORINE RESIDUAL | MG/L | N/A | N/A |
| FIELD TOTAL CHLORINE RESIDUAL | MG/L | N/A | N/A |
| FIELD PH | DMSNLESS | N/A | 6.5-8.5(A4) |
| FIELD TEMPERATURE | °C | N/A | <15 °C(A1) |
| FIELD TURBIDITY | FTU | N/A | 1.0 (A1) |
| **CHEMISTRY (LAB)** | | | |
| ALKALINITY | MG/L | .200 | 30-500(A4) |
| CALCIUM | MG/L | .100 | 100. (F2) |
| CYANIDE | MG/L | .001 | .20(A1) |
| CHLORIDE | MG/L | .200 | 250. (A3) |
| COLOUR | TCU | .5 | 5.0 (A3) |
| CONDUCTIVITY | UMHO/CM | 1. | 400. (F2) |
| FLUORIDE | MG/L | .01 | 2.4 (A1) |
| HARDNESS | MG/L | .50 | 80-100(A4) |
| MAGNESIUM | MG/L | .05 | 30. (F2) |

| SCAN/PARAMETER | UNIT | DETECTION LIMIT | GUIDELINE |
|---|---|---|---|
| NITRITE | MG/L | .001 | 1.0 (A1) |
| TOTAL NITRATES | MG/L | .02 | 10. (A1) |
| NITROGEN TOTAL KJELDAHL | MG/L | .02 | N/A |
| PH | DMSNLESS | N/A | 6.5-8.5(A4) |
| PHOSPHORUS FIL REACT | MG/L | .0005 | N/A |
| PHOSPHORUS TOTAL | MG/L | .002 | .40(F2) |
| TOTAL SOLIDS | MG/L | 1. | 500. (A3) |
| TURBIDITY | FTU | .02 | 1.0 (A1) |
| **METALS** | | | |
| ALUMINUM | UG/L | .050 | 100. (A4) |
| ANTIMONY | UG/L | .050 | 146. (D4) |
| ARSENIC | UG/L | .050 | 50. (A1) |
| BARIUM | UG/L | .020 | 1000. (A1) |
| BORON | UG/L | .200 | 5000. (A1) |
| BERYLLIUM | UG/L | .010 | 0.20 (H) |
| CADMIUM | UG/L | .050 | 5.0 (A1) |
| COBALT | UG/L | .020 | 1000. (H) |
| CHROMIUM | UG/L | .100 | 50. (A1) |
| COPPER | UG/L | .100 | 1000. (A3) |
| IRON | UG/L | 5.0 | 300. (A3) |
| MERCURY | UG/L | .01 | 1.0 (A1) |
| MANGANESE | UG/L | .050 | 50. (A3) |
| MOLYBDENUM | UG/L | .020 | 500. (H) |
| NICKEL | UG/L | .100 | 50. (F3) |
| LEAD | UG/L | .020 | 50. (A1) |
| SELENIUM | UG/L | .200 | 10. (A1) |
| SILVER | UG/L | .020 | 50. (A1) |
| STRONTIUM | UG/L | .100 | 2000. (H) |
| THALLIUM | UG/L | .010 | 13. (D4) |
| TITANIUM | UG/L | .100 | N/A |
| URANIUM | UG/L | .020 | 20. (A2) |
| VANADIUM | UG/L | .020 | 100. (H) |
| ZINC | UG/L | .020 | 5000. (A3) |
| **PHENOLICS** | | | |
| PHENOLICS (UNFILTERED REACTIVE) | UG/L | .2 | 2.0 (A3) |
| **PESTICIDES & PCB** | | | |
| ALDRIN | NG/L | 1.0 | 700. (A1) |
| AMETRINE | NG/L | 50. | 300000. (D3) |
| ATRAZINE | NG/L | 50. | 60000. (B3) |
| ALPHA HEXACHLOROCYCLOHEXANE (BHC) | NG/L | 1.0 | 700. (G) |
| BETA HEXACHLOROCYCLOHEXANE (BHC) | NG/L | 1.0 | 300. (G) |
| GAMMA HEXACHLOROCYCLOHEXANE(LINDANE) | NG/L | 1.0 | 4000. (A1) |
| ALPHA CHLORDANE | NG/L | 2.0 | 7000. (A1) |
| GAMMA CHLORDANE | NG/L | 2.0 | 7000. (A1) |
| BLADEX | NG/L | 100. | 10000. (B3) |
| DIELDRIN | NG/L | 2.0 | 700. (A1) |
| METHOXYCHLOR | NG/L | 5.0 | 100000. (A1) |
| ENDOSULFAN 1 (THIODAN I) | NG/L | 2.0 | 74000. (D4) |
| ENDOSULFAN 2 (THIODAN II) | NG/L | 4.0 | 74000. (D4) |
| ENDRIN | NG/L | 4.0 | 200. (A1) |
| ENDOSULFAN SULPHATE(THIODAN SULPHATE) | NG/L | 4.0 | N/A |
| HEPTACHLOR EPOXIDE | NG/L | 1.0 | 3000. (A1) |

| SCAN/PARAMETER | UNIT | DETECTION LIMIT | GUIDELINE | |
|---|---|---|---|---|
| HEPTACHLOR | NG/L | 1.0 | 3000. | (A1) |
| METOLACHLOR | NG/L | 500. | 50000. | (B3) |
| MIREX | NG/L | 5.0 | N/A | |
| OXYCHLORDANE | NG/L | 2.0 | N/A | |
| O,P-DDT | NG/L | 5.0 | 30000. | (A1) |
| PCB | NG/L | 20.0 | 3000. | (A2) |
| O,P-DDD | NG/L | 5.0 | N/A | |
| PPDDE | NG/L | 1.0 | 30000. | (A1) |
| PPDDT | NG/L | 5.0 | 30000. | (A1) |
| ATRATONE | NG/L | 50. | N/A | |
| ALACHLOR | NG/L | 500. | 35000. | (D2) |
| PROMETONE | NG/L | 50. | 52500. | (D3) |
| PROPAZINE | NG/L | 50. | 16000. | (D2) |
| PROMETRYNE | NG/L | 50. | 1000. | (B3) |
| SENCOR (METRIBUZIN) | NG/L | 100. | 80000. | (B2) |
| SIMAZINE | NG/L | 50. | 10000. | (B3) |
| **POLYAROMATIC HYDROCARBONS** | | | | |
| PHENANTHRENE | NG/L | 10.0 | N/A | |
| ANTHRACENE | NG/L | 1.0 | N/A | |
| FLUORANTHENE | NG/L | 20.0 | 42000. | (D4) |
| PYRENE | NG/L | 20.0 | N/A | |
| BENZO(A)ANTHRACENE | NG/L | 20.0 | N/A | |
| CHRYSENE | NG/L | 50.0 | N/A | |
| DIMETHYL BENZO(A)ANTHRACENE | NG/L | 5.0 | N/A | |
| BENZO(E)PYRENE | NG/L | 50.0 | N/A | |
| BENZO(B)FLUORANTHENE | NG/L | 10.0 | N/A | |
| PERYLENE | NG/L | 10.0 | N/A | |
| BENZO(K)FLUORANTHENE | NG/L | 1.0 | N/A | |
| BENZO(A)PYRENE | NG/L | 5.0 | 10. | (B1) |
| BENZO(G,H,I)PERYLENE | NG/L | 20.0 | N/A | |
| DIBENZO(A,H)ANTHRACENE | NG/L | 10.0 | N/A | |
| INDENO(1,2,3-C,D)PYRENE | NG/L | 20.0 | N/A | |
| BENZO(B)CHRYSENE | NG/L | 2.0 | N/A | |
| CORONENE | NG/L | 10.0 | N/A | |
| **SPECIFIC PESTICIDES** | | | | |
| TOXAPHENE | NG/L | N/A | 5000. | (A1) |
| 2,4,5-TRICHLOROBUTYRIC ACID (2,4,5-T) | NG/L | 50. | 280000. | (B1) |
| 2,4-DICHLOROBUTYRIC ACID (2,4-D) | NG/L | 100. | 100000. | (A1) |
| 2,4-DICHLORORPHENOXYBUTYRIC ACID | NG/L | 200. | 18000. | (B3) |
| 2,4-D PROPIONIC ACID | NG/L | 100. | N/A | |
| DICAMBA | NG/L | 100. | 87000. | (B3) |
| PICHLORAM | NG/L | 100. | 2450000. | (D3) |
| SILVEX (2,4,5-TP) | NG/L | 50. | 10000. | (A1) |
| DIAZINON | NG/L | 20. | 14000. | (A1) |
| DICHLOROVOS | NG/L | 20. | N/A | |
| DURSBAN | NG/L | 20. | N/A | |
| ETHION | NG/L | 20. | 35000. | (G) |
| GUTHION | NG/L | N/A | N/A | |
| MALATHION | NG/L | 20. | 160000. | (G) |
| MEVINPHOS | NG/L | 20. | N/A | |
| METHYL PARATHION | NG/L | 50. | 7000. | (B3) |
| METHYLTRITHION | NG/L | 20. | N/A | |
| PARATHION | NG/L | 20. | 35000. | (B1) |

| SCAN/PARAMETER | UNIT | DETECTION LIMIT | GUIDELINE |
|---|---|---|---|
| PHORATE (THIMET) | NG/L | 20. | 35. (D2) |
| RELDAN | NG/L | 20. | N/A |
| RONNEL | NG/L | 20. | N/A |
| AMINOCARB | NG/L | N/A | N/A |
| BENONYL | NG/L | N/A | N/A |
| BUX (METALKAMATE) | NG/L | 2000. | N/A |
| CARBOFURAN | NG/L | 2000. | 18000. (D3) |
| CICP (CHLORPROPHAM) | NG/L | 2000. | 350000. (G) |
| DIALLATE | NG/L | 2000. | 30000. (H) |
| EPTAM | NG/L | 2000. | N/A |
| IPC | NG/L | 2000. | N/A |
| PROPOXUR (BAYGON) | NG/L | 2000. | 90000. (G) |
| SEVIN (CARBARYL) | NG/L | 200. | 70000. (A1) |
| SUTAN (BUTYLATE) | NG/L | 2000. | 245000. (D3) |
| **VOLATILES** | | | |
| BENZENE | UG/L | .050 | 5.0 (B1) |
| TOLUENE | UG/L | .050 | 24.0 (B4) |
| ETHYLBENZENE | UG/L | .050 | 2.4 (B4) |
| PARA-XYLENE | UG/L | .100 | 300. (B4) |
| META-XYLENE | UG/L | .100 | 300. (B4) |
| ORTHO-XYLENE | UG/L | .050 | 300. (B4) |
| 1,1-DICHLOROETHYLENE | UG/L | .100 | 7.0 (D1) |
| ETHLYENE DIBROMIDE | UG/L | .05 | 50. (G) |
| METHYLENE CHLORIDE | UG/L | .500 | 1750. (D3) |
| TRANS-1,2-DICHLOROETHYLENE | UG/L | .100 | 350. (D3) |
| 1,1-DICHLOROETHANE | UG/L | .100 | N/A |
| CHLOROFORM | UG/L | .100 | 350. (A1+) |
| 1,1,1-TRICHLOROETHANE | UG/L | .020 | 200. (D1) |
| 1,2-DICHLOROETHANE | UG/L | .050 | 5.0 (D1) |
| CARBON TETRACHLORIDE | UG/L | .200 | 5.0 (D1) |
| 1,2-DICHLOROPROPANE | UG/L | .050 | 10.0 (G) |
| TRICHLOROETHYLENE | UG/L | .100 | 5.0 (D1) |
| DICHLOROBROMOMETHANE | UG/L | .050 | 350. (A1+) |
| 1,1,2-TRICHLOROETHANE | UG/L | .050 | .60(D4) |
| CHLORODIBROMOMETHANE | UG/L | .100 | 350. (A1+) |
| TETRACHLOROETHYLENE | UG/L | .050 | 10.0 (C2) |
| BROMOFORM | UG/L | .200 | 350. (A1+) |
| 1,1,2,2-TETRACHLOROETHANE | UG/L | .050 | 0.17(D4) |
| CHLOROBENZENE | UG/L | .100 | 1510. (D3) |
| 1,4-DICHLOROBENZENE | UG/L | .100 | 5.0 (B1) |
| 1,3-DICHLOROBENZENE | UG/L | .100 | 130. (G) |
| 1,2-DICHLOROBENZENE | UG/L | .050 | 200. (B1) |
| TRIFLUOROCHLOROTOLUENE | UG/L | .100 | N/A |
| TOTAL TRIHALOMETHANES | UG/L | .500 | 350. (A1) |
| STYRENE | UG/L | .05 | 46.5 (D2) |